WOODBURN UGB JUSTIFICATION REPORT (STATEWIDE PLANNING GOAL FINDINGS)

October 2005

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INTRODUCTION

This report provides an overall justification for the proposed *Woodburn Comprehensive Plan* (Plan) and Urban Growth Boundary (UGB) amendment package – substantially as recommended by the Woodburn Planning Commission. This report incorporates some recommended changes to plan designations within the UGB and to the UGB itself – based on comments received during the City Council's public hearing and deliberation process. **The City of Woodburn has elected to proceed with the proposed plan and code amendment package based on the "new" Statewide Planning Goal 14 (Urbanization), which was adopted by the Land Conservation and Development Commission (LCDC) in April of 2005, and became effective on June 28, 2005.**

Report Organization

The UGB Justification Report is organized to address Statewide Planning Goal 14 (Urbanization) requirements for urban growth boundary amendments.

First, an **Executive Summary** explains the underlying rationale for the proposed amendment package, in terms of local objectives and Oregon land use planning program requirements.

Part I of this report addresses Year 2020 land needs and the capacity of the existing UGB to meet these needs, as required by the "Land Need" subsection of the amended Goal 14, which reads as follows:

> ***"Establishment and change of urban growth boundaries shall be based on the following:***
>
> ***(1) Demonstrated need to accommodate long range urban population, consistent with a 20-year population forecast coordinated with affected local governments; and***
>
> ***(2) Demonstrated need for housing, employment opportunities, livability or uses such as public facilities, streets and roads, schools, parks or open space, or any combination of the need categories in this subsection (2).***
>
> ***In determining need, local government may specify characteristics, such as parcel size, topography or proximity, necessary for land to be suitable for an identified need."***

UGB amendments are also governed by applicable Oregon state statutes and applicable Land Conservation and Development (LCDC or Statewide Planning) Goals and administrative rules (OARs).[1]

Statewide Planning Goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and 7 (Areas Subject to Natural Hazards) also apply to the determination of those lands that are "buildable" and those that are not. Goals 9 (Economy of the State) and 10 (Housing) apply to the determination of employment and housing needs. These Goals are further refined in the Goal 9 Rule (OAR Chapter 660, Division 009) and the Goal 10 Rule (OAR Chapter 660, Division 008). Goals 8 (Recreational Needs) and 11 (Public Facilities and Services) inform needs determinations for parks and schools.

ORS 197.296 (factors to establish sufficiency of buildable lands within urban growth boundary; analysis and determination of residential housing patterns) requires local governments to meet identified housing needs and to increase land use efficiency within the UGB before expanding onto adjacent rural lands. ORS 197.303 to 197.314 require local governments to provide for "needed housing types" under clear and objective zoning standards.

Therefore, Part I of this report also incorporates findings related to compliance with Statewide Planning Goals 5, 7, 8, 9, 10 and 11, and applicable statutes and rules, as well as Goal 14 (Urbanization). Part I also addresses ORS 197.296 and 197.303 to 197.314 statutory requirements.

Part II of this report addresses ORS 197.296 and Goal 14 requirements related to land use efficiency within the existing (2002) and adopted (2005) UGB. In particular, this section explains "measures" adopted to increase land use efficiency within the existing UGB, and explains "why identified needs cannot reasonably be accommodated on land already inside the urban growth boundary." Throughout this report: the existing (pre-amendment) UGB is referred to as the **2002 UGB** (the base year); and the amended UGB is referred to as the **2005 UGB**.

Part III of this report addresses ORS 197.298 "priorities" and the "Boundary Location" subsection of Goal 14, which reads as follows:

> ***"The location of the urban growth boundary and changes to the boundary shall be determined by evaluating alternative boundary locations consistent with ORS 197.298 and with consideration of the following factors:***
>
> ***(1) Efficient accommodation of identified land needs;***
>
> ***(2) Orderly and economic provision of public facilities and services;***

[1] For jurisdictions choosing to apply the amended Goal 14, the goal "exception" requirements of ORS 197.732, Part II of Goal 2 (Land Use Planning), and OAR 660-004-0010(1)(c) and 660-004-0020 no longer apply to UGB amendments.

(3) Comparative environmental, energy, economic and social consequences; and

(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB."

ORS 197.298 establishes "priorities" for determining which lands should be added to a UGB. The location of UGB amendments also must be consistent with applicable Land Conservation and Development Commission (LCDC) or Statewide Planning Goals. Statewide Planning Goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and 7 (Areas Subject to Natural Hazards) also apply to the determinations of which lands are "buildable" and which are not.

Comprehensive Plan and WDO Amendments Relied On

The findings in this report, and the Planning Commission's recommendation, rely on the adoption of documents amending the Woodburn Comprehensive Plan (including the Economic Development Strategy (EDS), Public Facilities Plan (PFP), Transportation Systems Plan (TSP) and Land Development Ordinance (WDO):

- Woodburn Comprehensive Plan amendments (City of Woodburn, 2005):
  - Woodburn Comprehensive Plan Map (City of Woodburn, 2005);
  - Woodburn Economic Development Strategy (ECONorthwest, 2002);
  - Woodburn Public Facilities Plan Project Tables and Maps (City of Woodburn, 2005); and
  - Woodburn Transportation Systems Plan Update (CH2M Hill, 2005).

- Woodburn Land Development Ordinance and Map amendments (City of Woodburn, 2005).

Intergovernmental Agreements

In 2004-05, Woodburn staff coordinated with Marion County and the Oregon Department of Transportation (ODOT) in drafting two intergovernmental agreements.

- Draft Urban Growth Boundary Coordination Agreement (UGBCA) with Marion County (May 2005)
- Draft Intergovernmental Agreement (IGA) with ODOT (September 2005) [2]

The first addresses the Marion County Growth Management Framework Plan (Framework Plan) policy requirement that a new intergovernmental agreement be in place before the County adopts City comprehensive plan amendments that require County approval. The

[2] A second draft IGA is being developed between the City and ODOT regarding funding commitments for interchange improvements.

second addresses implementation and monitoring of new development with the Interchange Management Area (IMA) Overlay District.

Principal Support Documents

The findings in this report, and the Planning Commission's recommendation, are based on the background studies and memoranda listed below. In some cases, these reports and memoranda have been modified to support recommended changes resulting from the City Council's public hearing and deliberation process. In other cases, the City found minor mistakes in background documents that have been corrected. In cases of conflict, the findings in this report shall prevail.

Woodburn Comprehensive Plan and UGB Amendment Justification Studies (Volume II)

- Technical Report 1 – Buildable Lands Inventory (Winterbrook, 2005)
- UGB Study Area Public Services Analysis (City of Woodburn, 2004)
- Site Requirements For Woodburn Target Industries (ECONorthwest, 2003)
- Technical Report 2 – Residential Land Needs Analysis (Winterbrook, May 2005)
- Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook, 2002)
- Population and Employment Projections 2000-2020 (ECONorthwest, 2002)
- Economic Opportunities Analysis (ECONorthwest, 2001)
- Economic Development Strategy (ECONorthwest, 2002)
- Explanation of Proposed Plan and Zoning Map Changes (City of Woodburn, 2004)
- Analysis of Public Facilities to Serve UGB Study Areas (PFP, Appendix C)

Background Maps

The Council relied on the following maps to support its decision to expand the UGB:

- Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2005)
- UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook/Marion County, 2005)
- Study Areas (1-8) Soil Capability Classes Maps (City of Woodburn, 2005)
- Public Facilities Maps for UGB Expansion Areas (PFP, Appendix B)

Additional Background Studies and Plans

The Council also relied on the following secondary sources of information:

- Occupation/Wage Forecast (ECONorthwest, 2003)
- Storm Drainage Master Plan (Crane & Merseth, 2002)
- Water Master Plan (HDR, 2001)
- City of Woodburn Local Wetlands Inventory and Riparian Assessment (Shapiro, 2000)
- Woodburn Local Wetland Inventory Map (Shapiro, 2000)
- Woodburn Wastewater Facilities Plan, Volumes 1-3 (CH2MHill, 1995)

- City Staff Reports to the Planning Commission and City Council (2004 and 2005)
- Winterbrook Memoranda to the Planning Commission and City Council Responding to Public and Agency Comments (2004 and 2005)
- "Ridgefield growth continues with 330-acre mixed-use project," (The Daily Journal of Commerce, August 16, 2005).

Population Coordination Documents
The following documents support the City's coordinated 20-year population projection:

- Marion County Comprehensive Plan Amendments Memo (Winterbrook, 2004)
- Evaluation of 2004 OEA Population Forecast (ECONorthwest, 2004)
- Marion County Ordinance 1201 and Findings Approving Population Projection
- Marion County Board Minutes of November 10, 2004

Documents Not Relied Upon
The City Council deliberately did not rely on the following documents in making its decision to amend the Woodburn UGB because these documents have been updated and are superceded by the documents cited above:

- Woodburn Buildable Lands and Urbanization Project (McKeever/Morris, 1998)
- *Preliminary* Transportation Scenarios (Winterbrook, 2003)

EXECUTIVE SUMMARY

This summary explains the underlying planning and legal rationale for the proposed Woodburn Comprehensive Plan (comprehensive plan or plan) and Development Ordinance (WDO) amendment package – including the proposed UGB amendments. **These findings demonstrate consistency with Statewide Planning Goal 14 – Urbanization, *as amended by the Land Conservation and Development Commission, effective June 28, 2005.***

The plan and ordinance amendment package is designed to allow the City of Woodburn to achieve local community planning and economic development objectives – in coordination with Marion County – and consistent with Oregon's land use planning program. This has not been an easy task: Woodburn, Marion County, the Department of Land Conservation (DLCD) and the Oregon Department of Transportation (ODOT) have been working to achieve this goal since Woodburn's Periodic Review Work Program was approved in 1999.

Community Planning Objectives

As emphasized over the last two years in technical advisory committee meetings, a joint Planning Commission / Council work session held in November of 2003, a series of public open houses, four Planning Commission work sessions, public hearings before the Marion County Board of Commissioners, and the Woodburn Planning Commission and City Council, **the 2005 amendment package is designed to achieve seven inter-related objectives**:

1. Implement the Woodburn Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS) by encouraging higher wage jobs in the community, providing choice among suitable industrial sites and requiring master planning to meet the needs of targeted industries (as required by Goal 9, Goal 14, and ORS 197.712);

2. Provide improved transportation connections and preserve the capacity of the I-5 Interchange by adopting a revised Transportation System Plan and a new I-5 Interchange Management Area Overlay District, providing for east-west transportation corridors and relieving congestion at the critical I-5 Interchange (as required by Goal 12, the Transportation Planning Rule, and Goal 14, Boundary Location Factor 2).

3. Provide buildable land for housing, parks and schools while increasing land use efficiency, connectivity and livability through good urban design (consistent with Goals 8, 10, 11, 12 and 14; the City's housing needs, parks master plan, and school facilities analysis; ORS 197.296, and the Marion County Framework Plan);

4. Protect Woodburn's stream corridors, floodplains and wetlands from urban encroachment (as required by Goals 5 and 7, and Goal 14 Boundary Location Factor 3).

5. Preserve farmland and minimize impacts on agricultural land (as required by ORS 197.298, the Marion County Framework Plan, and Goal 14 Boundary Location Factor 4);

6. Coordinate with Marion County by using the coordinated population projection that Marion County allocated to Woodburn, incorporating Framework Plan policies into the Woodburn Comprehensive Plan, considering recommendations where possible, and adopting a new Urban Growth Management Agreement (as required by Goal 2 and ORS Chapter 195);

7. Complete the City's Periodic Review process (as required by the City's Periodic Review Work Program and ORS 197.628 to 197.636);

The 2002-2005 Planning Process

From 2002-2003, Winterbrook staff worked closely with ODOT, DLCD, Marion County and City planning and public works staff to prepare a draft comprehensive plan and WDO amendment package. During this period, Winterbrook also conducted its preliminary housing, school and park needs analysis, and buildable lands inventories for land within the existing UGB, and for 8 study areas surrounding the UGB.[3] Winterbrook and Woodburn planning staff presented this package to a joint work session of the Woodburn Planning Commission and City Council on November of 2003. The Marion County Board of Commissioners approved the City's Year 2020 population projection of 34,919 in November of 2004. During the next year, the City conducted open houses, planning commission work sessions, the Planning Commission public hearing, and City Council public hearings and deliberations that resulted in the 2005 package of recommendations.

Step 1: The Foundation – Woodburn's Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS)

Winterbrook Planning used the Council-approved Economic Opportunities Analysis (ECONorthwest, 2001) and Economic Development Strategy (ECONorthwest, 2001) as the foundation for its recommendations to the City Planning Commission and Council. Chapter 4 and Appendix B of the EOA identify "target industries" based on Woodburn's comparative economic advantages and local policy objectives, and describe the site requirements of each "targeted" employment category and for master planned employment parks. In simple terms, the EOA and EDA recommend that Woodburn capitalize on its principal comparative advantages:

- the City's Interstate 5 location between Salem and Portland;

[3] Please see Technical Report 1 – Buildable Lands Inventory (Winterbrook Planning, revised in May 2005); Technical Report 2 – Residential Land Needs Analysis (Winterbrook Planning, revised in May of 2005); and Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook Planning, 2003); Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2005); UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook Planning, Revised in May of 2005). These documents were updated for accuracy and clarity based on public and agency comments.

- the availability of large tracts of flat land with direct access (i.e., within two miles of) the I-5 Interchange with Highway 214; and
- the City's commitment and ability to provide required urban services to these sites in the short-term.

The EOA also determined that Woodburn lacked an adequate supply of suitable sites within its existing UGB to attract targeted employers, and noted that the City's population was growing at a much faster rate than projected in Marion County's "coordinated" forecast. In 2002-03, ECONorthwest identified the site *size* requirements for targeted employment categories identified in the EOA.[4]

To implement the recommendations of the EOA and ECONorthwest's Target Industries Site Requirements Memorandum (2003), Winterbrook recommended inclusion of some 400 gross acres within a "Southwest Industrial Reserve" (SWIR) comprehensive plan overlay designation and zoning district. To ensure direct access from the west to I-5, while minimizing inclusion of Class I and II agricultural soils, the SWIR is located immediately west and south of developed I-5 industrial land.[5] Part 1 of this report further describes the site suitability criteria used to identify land for inclusion within the SWIR. The SWIR district reserves land exclusively for targeted employment categories identified in the EOA, and requires master planning to ensure efficient provision of public facilities and services, and retention of sites in parcel sizes prescribed in ECONorthwest's 2003 Target Industries Site Requirements Memorandum.

As noted in the Council's Goal 14 Boundary Location findings, most of the SWIR is considered serviceable and available for development within the next five years. Land on the west side of I-5 and east of Butteville Road[6] can be served immediately with sanitary

[4] Please see "Site Requirements For Woodburn Target Industries" (ECONorthwest, 2003) and "Population and Employment Projections 2000-2020" (ECONorthwest, 2003). Woodburn's 2020 population projection of 34,919 was adopted in November of 2004 by the Marion County Board of Commissioners. The 2005 plan and ordinance amendment package is based on ECONorthwest's high employment projection of 8,374 new employees. These projections represent a population increase of 74% from 2000-2020, in contrast to an employment increase of 81% for the same period.

[5] As documented in Part III of this report, the SWIR includes the largest concentration of relatively low quality Class III agricultural soils within the 8 study areas. To minimize intrusion into Class I and II agricultural soils, the City decided not to extend the SWIR west of Butteville Road. Although land to the east of Butteville Road contains primarily Class II agricultural soils, it must be developed to (a) pay for improvement of the Butteville Road arterial street to City standards, and (b) extend urban sewer, water and drainage services to other properties within the SWIR.

[6] As explained in the Goal 14 Boundary Location findings in Part III, the City Council removed the easterly 70 acres of Tax Lot 1300 (to the west of Butteville Road) from the UGB expansion, because it is comprised primarily of Class II soils and its development is not necessary to extend services to areas with lower quality agricultural soils. Based on comments from 1000 Friends of Oregon (1000 Friends), 52W23 Tax Lot 100, located east of I-5 south of the "South Arterial" was included within the SWIR instead, because it is comprised primarily of Class III agricultural soils, and its development will help defray the costs of constructing the South Arterial.

sewer, water, drainage and transportation services. The City Council expects SWIR parcels served by Parr Road and the planned extension of Evergreen Road to be development-ready within 2-5 years. As a result of a recent subdivision approval, Evergreen Road will be extended to the southern edge of the 2004 UGB in 2006.

Over the next 5-10 years, the remainder of the SWIR will become development ready, as industrial land developers pay (through frontage improvements, local improvement districts and systems development charges) for street extensions for Evergreen Road to the "South Arterial", Butteville and Parr Roads, and for the "South Arterial" connecting Evergreen Road with Butteville Road (including the Butteville Road Overpass) and for utility extensions.

Step 2: The Transportation System Plan (TSP)
From 2002 - 2005, Winterbrook and City staff worked closely with CH2M Hill, ODOT, and Marion County on the update to the Woodburn Transportation Systems Plan. The 2001 EOA had found that the greatest impediment to Woodburn's economic success was congestion at the I-5 / Highway 214 Interchange. To address this I-5 capacity and access problem, the TSP includes three solutions:

1. **I-5 Interchange Improvements**: Construct some $72 million in I-5 Interchange and Highway 214 improvements funded through a combination of local, state, federal and private funds. As noted in the Woodburn TSP, the Council expects that industrial and commercial developers served by the I-5 interchange will contribute to the timely construction of interchange improvements by (a) forming of a LID, and (b) paying SDC fees.

2. **Ring Road System**: Create alternative east-west and north-south arterial routes to encourage traffic to access I-5 from the west, where Interchange traffic congestion is less acute. Improvements to Butteville, Parr and Evergreen Roads, and the western leg of the "South Arterial", are necessary to the successful implementation of Woodburn's Economic Development Strategy. As a condition of annexation to the City, Woodburn will require frontage improvements and construction of over-sized utility lines consistent with an approved master plan, to ensure the sequential development of land within the SWIR overlay.

3. **Interchange Management Area (IMA) Overlay District**: To ensure that investments in the long-term capacity of the I-5 Interchange are well managed, the Council adopted few comprehensive plan policies and a new IMA Overlay District. This district will ensure the preservation of I-5 Interchange capacity by (a) prohibiting plan amendments that increase land available for commercial land uses, and (b) establishing district-wide and parcel-specific trip budgets. Monitoring cumulative traffic impacts will be ensured through an intergovernmental agreement between Woodburn and ODOT.

The success of Woodburn's economic development strategy depends on completion of the arterial street network, combined with major improvements to the I-5 / Highway 214 Interchange and measures to preserve its long-term capacity. Without these

improvements, congestion at the I-5 Interchange will continue to worsen, and Woodburn will suffer the same comparative *dis*advantage faced by I-5 communities with congested interchanges – such as Tualatin and Wilsonville to the north. Woodburn and ODOT staff have prepared a draft Intergovernmental Agreement (IGA) to ensure coordinated implementation and monitoring of Interchange Preservation Plan and IMA Overlay District.

Step 3: Providing Buildable Land for Residential Neighborhoods While Increasing Efficiency of Land Use

From 2002-03, Winterbrook conducted a preliminary housing, school and park needs analysis, and buildable lands inventories for land within the existing UGB and for eight study areas surrounding the UGB.[7] Since park, school and institutional needs typically are met on land designated for residential use, these needs are incorporated into the residential land needs analysis. Winterbrook revised these preliminary studies in response to public and agency comments, and changes in comprehensive plan designations, in 2005.

The planning period runs from 2002 through 2020. The City's land needs analysis and buildable lands inventory are based on 2002 data. As of 2002, Woodburn had 511 net buildable acres[8] of land designated for residential use inside the then-existing UGB.

From 1988-2002, Woodburn developed at an average density of 7.25 dwelling units per net buildable acre. There are several reasons for this relatively high density figure: (1) much of Woodburn's single-family residential housing during this period was developed through the PUD process, resulting in relatively small subdivision lots clustered around a golf course; (2) Woodburn experienced a relatively high proportion of multiple-family units (31%) built during this period; (3) most of Woodburn's residential development occurred on relatively large parcels – leaving many smaller, partially-vacant parcels that are unlikely to develop as efficiently in the future; and (4) actual density calculations did not include single-family homes constructed on infill parcels created through the less-efficient partitioning process. [9]

[7] Please see Technical Report 1 – Buildable Lands Inventory (Winterbrook Planning, revised in May 2005); Technical Report 2 – Residential Land Needs Analysis (Winterbrook Planning, revised in May of 2005); and Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook Planning, 2003); Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2004); UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook Planning, Revised in May of 2005). These documents were updated for accuracy and clarity based on public and agency comments and Council direction; however, the parcel data base is from 2002.

[8] Please note that Winterbrook defined a "net buildable acre" as 43,560 square feet of land exclusive of protected constrained areas (floodplain, wetlands, riparian corridors) and needed public rights-of-way. Thus, a 10-acre residential site with 2 acres of protected riparian/floodplain area, would have six buildable acres, assuming 20% of the site (another 2 acres) is dedicated for streets.

[9] Actual single family densities are based on the actual density in approved subdivisions and planned unit developments. Parcels approved through the less-efficient partitioning process (resulting in 3 or fewer parcels) were not included in actual density calculations. Actual densities for parcels approved through the partitioning process occurred at less than 3 units per net buildable acre. Thus, the actual densities would have been slightly lower had single-family homes approved through the portioning process been included.

As noted in the Part I of this Report (Goal 14 Residential Land Needs), if recent actual housing density trends and mix were to continue to 2020, Woodburn would need 680 net buildable residential acres (outside of exception areas) through 2020 to provide for housing. As noted in the Part I Goal 14 Public and Semi-Public Use Land Needs findings, through 2020 Woodburn would also need 210 net buildable residential acres for public/semi-public uses. Together, these needs would require an expansion of the existing UGB residential land supply by about 380 net buildable acres, to meet the housing, park, school and institutional needs of 13,722 new residents living outside of group quarters.[10]

Recognizing that ORS 197.298 requires local governments to look first to "exception areas," Winterbrook carefully analyzed the capacity of residential exception areas adjacent to the existing UGB to meet identified housing needs. Winterbrook determined that approximately 295 low-density residential dwelling units,[11] and 105 medium-density dwelling units, could be accommodated in adjacent exception areas. This reduced the number of housing units to be accommodated on other buildable lands by 400 – from 13,722 to 13,322 units.

As a result of the housing needs analysis, the Council determined that a wider range of housing types would be needed in the future, including small-lot single-family (Nodal SFR), attached single-family (row homes), and vertical mixed use housing (above retail in the downtown and nodal commercial zones). Overall, the housing needs analysis projects a 60:40 single-family to multiple-family split, with an average density of 8.9 dwellings per net buildable acre outside of built and committed exception areas. After accounting for lower single-family densities projected within highly-parcelized exception areas, planned urban residential development is projected to occur at an overall density of 7.8 dwellings per net buildable acre.

As explained in Part II, the adoption of specific land use efficiency measures reduces Year 2020 net buildable residential land needs by 130-160 acres, depending on the "base case scenario" selected.

Step 4: Protect Stream Corridors, Floodplains and Wetlands

The 2005 plan and code amendment package includes specific "safe harbor" policies and land use regulations to protect inventoried riparian corridors and locally significant wetlands. Residential, commercial and industrial construction is also prohibited within "undeveloped" floodplain areas, as mapped on the Woodburn Buildable Lands Inventory (BLI). Therefore, protected riparian corridors, wetlands and floodplains are excluded from the BLI.

[10] This analysis assumed an average household size of 2.9 persons and an average vacancy rate of 5%. Group quarters are non-institutional living arrangements for persons not living in conventional housing units or groups living in housing units containing nine or more persons unrelated to the person in charge.

[11] Projected density in highly-parcelized exception areas is slightly higher density (3.0 units per net buildable acre) than actually occurred on infill projects approved through the partitioning process in Woodburn from 1998-2002 (2.4 units per net buildable acre).

Step 5: Preserve and Limit Impacts to Agricultural Land
ORS 197.298 sets forth rigid priorities for inclusion of land within UGBs once a need has been established. Willamette Valley communities like Woodburn must first look to exception areas, and then to agricultural land to meet these needs. Agricultural land with lower agricultural suitability soil classes has higher priority for inclusion within UGBs than higher class agricultural soils.

Woodburn is surrounded by Class II agricultural land and has relatively few adjacent exception areas. Except for the MacLaren School site, the Council included all adjacent exception areas within the UGB. The capacity of each exception area to absorb future employment and housing has been accounted for in this UGB land needs assessment. Even after increasing intensity of land use within the existing UGB and the capacity of adjacent exception areas, Woodburn still needs additional buildable land to meet planned population and employment growth. Therefore, to meet Year 2020 growth needs, the City has no choice but to expand onto Class II agricultural land.

ORS 197.298(3) sets forth reasons why a City may include lower priority land (i.e., land with higher agricultural suitability) within a UGB:

> ***(3) Land of lower priority under subsection (1) of this section may be included in an urban growth boundary if land of higher priority is found to be inadequate to accommodate the amount of land estimated in subsection (1) of this section for one or more of the following reasons:***
> ***(a) Specific types of identified land needs cannot be reasonably accommodated on higher priority lands;***
> ***(b) Future urban services could not reasonably be provided to the higher priority lands due to topographical or other physical constraints; or***
> ***(c) Maximum efficiency of land uses within a proposed urban growth boundary requires inclusion of lower priority lands in order to include or to provide services to higher priority lands.***

Under ORS 197.298, higher priority is given to land with lower agricultural productivity – provided that the land with lower agricultural productivity can meet specific identified needs. While some Class IV-VI agricultural soils exist in the 8 study areas, they are associated with unbuildable stream corridors, and therefore are unsuitable to meet residential or employment land needs. In the Woodburn area, buildable land that meets suitability criteria for residential, commercial, industrial and public land uses is found almost entirely on Class I-III agricultural soils.

As noted above, Class I soils have the lowest priority for inclusion within any UGB. As shown on attached maps, Study Areas 1 and 3-7 have little or no Class I soil. However, there are substantial inclusions of Class I soil in two study areas: SA-2 (North – 40 acres) and SA-8 (West – 29 acres).

- In compliance with ORS 197.298 priorities, the City made the difficult decision not to include any land in SA-8 to the west of Butteville Road within the SWIR. Although large, flat and serviceable parcels proximate to I-5 are located between the railroad

tracks and Butteville Road, the Council concluded that these parcels should be retained as agricultural land because they are comprised primarily of Class I and II agricultural soils, and their inclusion cannot be justified for "reasons" found in ORS 197.298(3).

- Similarly, the Council decided to exclude almost all of the Class I land within SA-2 to address statutory priorities. Although the Council agrees with Renaissance Homes that Class I soils next to the golf course (now occupied by a Filbert orchard) east of Boones Ferry Road would make excellent high-end home sites, the Council found the argument that a need for high-end housing could only be met on Class I soils associated with a golf course unpersuasive, and was unwilling to jeopardize its broader planning objectives to include this land. The adopted UGB includes *only* an acre of Class I soils, located 100 feet eastward from an emergency access road required to connect an approved residential development within the Woodburn UGB to Boones Ferry Road, a planned urban arterial street.

As explained further in Part III of this report, the Class II soils area located east of Boones Ferry Road will meet an identified need for low density residential housing. This land is needed for two additional reasons: (1) to meet specific higher-end housing needs that Woodburn can *only* meet on land next to the golf course; *and* (2) to maximize efficiency of land use by providing urban transportation access, gravity flow sanitary and storm sewers, and a looped water system necessary to serve higher priority Class III soils to the west. (See Public Facilities Plan, Appendix B.)

As noted above and shown on attached soil maps, Woodburn is surrounded predominantly by Class II agricultural soils. However, beyond the surrounding Class II soils, there are two large concentrations of Class III soils located within the eight study areas. These areas of Class III soils can only be developed by extending services and arterial streets through areas with Class II soils. ORS 197.298(3)(b) and (c) allow for the inclusion of lower priority Class II soils to achieve maximum efficiency of land use and where necessary to serve higher priority Class III soils.

- **Study Area 2** (North) has a concentration of Class III soils containing approximately 34 acres. The Class III soils are found on the Fessler property, located between Interstate 5 and Boones Ferry Road, south of Crosby Road and immediately north of the 2002 UGB. In order to develop the Class III soils on the Fessler property for needed residential and public uses, Boones Ferry and Crosby Roads must be improved to arterial and service collector street standards, and urban services (sanitary sewer, water and storm drainage) must be extended through intervening Class II soils. (See Public Facilities Plan, Appendix B.)

- **Study Area 7** (Southwest) has by far the largest Class III soil area, which includes approximately 185 acres located generally south of Parr Road and east of Interstate 5. Class II soils separate this Class III area from the existing UGB. Most of this Class II and III soils area has been designated for industrial use within the SWIR, although a portion to the east is designated for residential use. In order to develop

and provide access to I-5 for Class III soils within SA-7, Butteville Road must be improved to arterial standards to connect with the planned South Arterial. For this to happen, land in SA-8 between the UGB and Butteville Road must develop and help pay for the arterial street extension. Evergreen Drive also must be improved to arterial street standards on Class II soils to connect with Parr Road and the South Arterial. Urban sewer, water and storm drainage services must be constructed through intervening areas with Class II soils to allow development of lower priority Class III areas. (See Public Facilities Plan, Appendix B.)

As noted earlier, Woodburn has no large concentrations of Class III soils immediately adjacent to the existing (2002) UGB. In Study Areas 2, 7 and 8, maximum efficiency of land use requires that intervening Class II soils be efficiently developed, in order to allow full development of more distant areas with Class III soil concentrations.

In the other UGB Study Areas, there are no large concentrations of buildable Class III soils. Unlike the land included within the 2005 Woodburn UGB, there is no need to develop Class I or II lands in the other UGB Study Areas to achieve urban efficiency objectives or to provide services to areas with predominantly Class III agricultural soils. Moreover, in the other UGB Study Areas, no identified urban land use need would be served by extending urban services through Class I and II soils to reach relatively small, linear configurations of unbuildable Class IV-VI soils.

Step 6: Coordinate with Marion County

Woodburn and Marion County have a long and fruitful history of intergovernmental coordination. Despite disagreements regarding certain aspects of the Marion County Growth Management Framework Plan in 2002-03, City and County staff have worked together productively to:

- Incorporate applicable growth management policies into the adopted 2005 Woodburn Comprehensive Plan;
- Adopt a coordinated Year 2020 population projection of 34,919;
- Update the Woodburn Transportation Systems Plan (TSP); and
- Develop staff recommendations regarding amendments to the Growth Management Agreement between the two jurisdictions.

As stated in the Marion County's March 21, 2005 comment letter to the City, County staff supports the 2005 comprehensive plan and development code amendment package as recommended by the Planning Commission. In particular, Planner Les Sasaki stated County support for:

- Inclusion of County Framework Plan goals and policies into the Woodburn Comprehensive Plan;
- Nodal development provisions;
- The Interchange Management Overlay (IMA) overlay district;
- Riparian and wetland conservation (safe harbor) provisions;
- Measures to increase land use efficiency (smaller lot sizes and allowance of a broader range of housing types);

- Incorporation of the 2001 Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS) into the 2005 Woodburn Comprehensive Plan;
- Southwest Industrial Reserve (SWIR) master planning requirements and retention of large parcels of land within the Southwest Industrial Reserve;
- Downtown redevelopment provisions;
- Provisions to retain agricultural land in farm use until needed for urban development;

Mr. Sasaki included a number of comments related to industrial and residential land supply, which are addressed in Part I of this report.

Step 7: Complete the Periodic Review Process

As requested by the Department of Land Conservation and Development (DLCD) in a March 16, 2005 letter from Willamette Valley Regional Representative Geoff Crook, the City made extensive updates to the Public Facilities Plan. In particular, the PFP now identifies short-term (2005-10) projects, as well as detailed tables and maps showing how sanitary sewer, water, storm drainage and transportation facilities will be provided to UGB expansion areas.

Appendix 1 to this report includes a detailed description of the Periodic Review work program and explains how the City has completed each of the required tasks – in most cases, more than once. In summary, Woodburn has completed:

- An initial and revised Buildable Lands Inventory and Land Needs Assessment (Task 1.A)
- Initial and revised growth management policies and land use regulations (Task 1.B)
- An Economic Opportunities Analysis, including commercial and industrial land inventories and site suitability analyses (Task 2)
- An update of the Public Facilities Plan (Task 3.A)
- Revisions to the Transportation Systems Plan (Task 3.B)
- An inventory and protection program for wetlands and riparian corridors (Task 7)
- An update comprehensive plan and land use regulations (Task 8)
- A successful coordination with Marion County and affected state and local governments (Task 9)
- An extensive citizen involvement program (Task 10)

PART I: LAND NEEDS ASSESSMENT (GOAL 14: LAND NEEDS)

The **Land Need** section of Goal 14 reads as follows:

> ***"Establishment and change of urban growth boundaries shall be based on the following:***
>
> ***(1) Demonstrated need to accommodate long range urban population, consistent with a 20-year population forecast coordinated with affected local governments; and***
>
> ***(2) Demonstrated need for housing, employment opportunities, livability or uses such as public facilities, streets and roads, schools, parks or open space, or any combination of the need categories in this subsection (2).***
>
> ***In determining need, local government may specify characteristics, such as parcel size, topography or proximity, necessary for land to be suitable for an identified need."***

The land needs assessment compares projected land needs through the year 2020 with the supply of land within the existing (2002) Woodburn UGB. Residential and public land needs are directly related to projected population growth. In contrast, employment land needs are based on the siting requirements of targeted employers.

Needs for housing, employment opportunities, livability and public/semi-public uses over the approximately 20-year planning period are summarized in this document under sections titled "Employment Land Needs," "Residential Land Needs" and "Public and Semi-Public Use Land Needs." Together with examining measures to increase the intensity of land use within the existing (2002) UGB (see Part II), these sections provide the basis for determining the amount and type of land that are needed outside the existing UGB.

Population and Employment Projections

Year 2020 Population Projection

The proposed Plan and UGB amendment package is based on a Year 2020 population projection of **34,919** with an average annual growth rate (AAGR) of 2.8%. Although opposed by 1000 Friends of Oregon (1000 Friends) and Friends and Neighbors of Woodburn (FAN), the Marion County Board of Commissioners adopted this projection as part of the Marion County Comprehensive Plan in November of 2004. This population projection represents an increase of 14,819 persons from Woodburn's 2000 U.S. Census population of 20,100 and an increase of 14,059 persons from Woodburn's 2002 PSU population estimate.[12] This coordinated and acknowledged population projection serves as the basis for projecting residential and public/semi-public land needs through the Year 2020.

[12] Portland State University Center for Population Research estimate.

ECONorthwest's April 29, 2002 memorandum entitled "Woodburn Population and Employment Projections, 2002-2020" justifies a 34,919 year 2020 population projection and explains why the previous projection of 26,290 – with an AAGR of 2.13 – was unreasonably low.[13] In simple terms, Woodburn's population grew at an average annual rate of 3.3% from 1970-2000. Woodburn's location along Interstate 5 between Salem and Portland will contribute to sustained population growth during the planning period. See "Marion County Comprehensive Plan Amendments to Update the Coordinated 2020 Population Projections for the City of Woodburn and for Marion County." (Winterbrook Planning, November 10, 2004)

Year 2020 Employment Projection

ECONorthwest also projected employment growth during the planning period. The 2002 ECONorthwest memorandum estimated that in 2000, Woodburn had 10,388 employees (including employees that are "covered" by employment insurance laws and those who are not). This memorandum provided employment projections ranging from 16,370 to 18,762 – or annual growth rates ranging from 2.3 – 3.0%. The Council chose the higher projection for several reasons:

- First, Woodburn currently has a relatively low employment-to-population ratio, when compared with the County as a whole. Using covered employment figures, Woodburn has 5% of total county employees – but 7% of the County population. Woodburn has only 1 job for every 2.4 residents, compared with 1 job for every 1.8 residents in Marion County. Thus, there is a substantial imbalance between jobs and housing in Woodburn – a situation that the City addresses in the Woodburn Economic Development Strategy (EDS). If Woodburn's economic development strategy is successful and Woodburn is able to attract 8,762 new jobs to go along with planned population growth, then Woodburn will have a more reasonable ratio of 1 job for every 1.9 people.

- Second, Woodburn's projected annual employment growth rate is reasonable given the City's I-5 location and the availability of flat, vacant and serviceable land within the SWIR that will be master planned before annexation and urban development can occur. As noted in Winterbrook's February 16, 2005 memorandum, Woodburn's comparative advantages are similar to those of Wilsonville, which attracted substantial economic growth over the last 25 years and has more jobs than residents.[14]

[13] This ECONorthwest memorandum served as the basis for agreement among Woodburn, Marion County, the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT) to use this projection for planning purposes in April of 2002. See April 2002 letter from Les Sasaki, Marion County Senior Planner.

[14] In 1980, Wilsonville had a population of 2,920 and relatively few jobs. Wilsonville was surrounded by agricultural land and, before the construction of I-5, relied heavily on the agricultural economy. As of September 1999, Wilsonville had over 800 acres of developed industrial land and 200 acres of vacant industrial land. By 2003, according to the most recent PSU population estimate, Wilsonville had 15,880 residents – more than a five-fold increase from 1980. Moreover, according to Department of Revenue data, Wilsonville had 18,118 covered employees. Thus, Wilsonville had 1.14 employees for every City

The record also includes a *Daily Journal of Commerce* article regarding the City of Ridgefield, Washington, another I-5 community located some 20 miles north of the Portland UGB. After identifying several new industrial and commercial development projects totaling 335,000 square feet, the 2005 article notes that: "Ridgefield is well on its way to become a significant economic engine for the region. During the next 20 years, Ridgefield is set to grow from a population of 2,900 to more than 25,000, with an employment base of more than 16,000 new jobs." Thus, the Council concludes that the initial size of a community has little to do with potential employment growth, especially when the community has large tracts of suitable and serviceable industrial land, near the Portland region, with direct I-5 access.

Objectors to Woodburn's economic development strategy cite the City of Keizer's recent decision to redesignate industrial land for commercial uses. However, in the Council's view, the City of Keiser's recent decision to convert industrial land near the freeway to commercial use accentuates, rather than diminishes, Woodburn's comparative advantage.

Contrary to views expressed by 1000 Friends and FAN, Woodburn's projected annual population growth rate of 2.8% AAGR is proportionate to its projected annual employment growth rate at 3.0% AAGR.

Third, Woodburn Transportation Systems Plan (TSP) and Interchange Management Area Overlay District are based on the high employment projection of 18,762. If Woodburn were to attract fewer than the projected number of jobs, then impacts on the interchange would be reduced and interchange improvements would have a longer life. On the other hand, if Woodburn were to under-estimate job growth near the interchange, and provide for lesser interchange improvements, then Woodburn would face a potential moratorium on higher employment growth under the City's IMA (Interchange Management Area) Overlay District.

In its various objections, 1000 Friends repeatedly argues that Woodburn has more land than "needed" to accommodate the high employment projection – based on the employee-per-acre method of calculating land needs preferred by that organization. However, as noted below in the employment needs discussion, Woodburn has projected employment land needs based on the siting needs of targeted basic employers – Woodburn's projections are not based directly on employee-per-acre or floor area ratios.[15] Rather, as required by ORS

resident. From the above comparison, it is clear that the size of a community has little to do with its employment or population growth potential. Woodburn's EOA instructs the City to capitalize on its I-5 location and the availability of large tracts flat, serviceable industrial land. Unlike Wilsonville in the 1980s and 90s, Woodburn has taken aggressive steps to preserve capacity at its only interchange. Woodburn also adopted strong policies to reserve its industrial land supply exclusively for basic employment uses. Thus, if ECONorthwest and Winterbrook have over-estimated potential basic employment opportunities, unused industrial land will be retained in large parcels exclusively for agricultural use.

[15] In responding to objections raised by FAN and 1000 Friends, the City Council relied on the February 16, 2005 Winterbrook Planning Memorandum to Planning Director Jim Mulder.

197.712 and the Goal 9 Rule, the Council has projected land needs based on the site characteristics that are required by targeted employers. Thus, reducing the employment projection to the mid or even low end of the range would not change the characteristics of the sites that Woodburn requires to be competitive in attracting family-wage jobs.

As documented in Technical Report 1, Buildable Lands Inventory (revised July 2005), the 2002 Woodburn UGB included 126 acres of vacant, partially vacant and potentially redevelopable industrial land – distributed among 36 parcels, with an average parcel size of 3.5 acres. Although this land is a valuable component of the City's industrial land inventory, it is concentrated along Highway 99E and the Union Pacific railroad tracks west of this congested highway, and for the most part fails to meet the specific siting requirements of industries targeted in Appendix B of the Woodburn EOA.

In response to objections raised by 1000 Friends and FAN, City staff contacted owners of "partially vacant" and "redevelopable" properties identified in Winterbrook's 2003 BLI. In most cases, the owners of industrial firms stated that partially vacant land on their property was being held for future expansion, and was *not* available for purchase to meet the needs of new targeted employers. In other cases, owners stated that "redevelopable" industrial land (i.e., land with an improvement to land value ratio of less than 1) was actually being used for storage of vehicles, equipment or materials. As a result of staff's research, the Council has determined that Winterbrook's original estimate of 126 buildable industrial acres was not realistic. In actuality, as shown Technical Report 1, Buildable Lands Inventory (revised 2005), there are only 47 buildable acres on 23 separate tax lots available to site new targeted employment in Woodburn existing (2002) UGB.

Simply put, land served by Highway 99E does *not* have direct access to I-5 and lacks the range of parcel sizes and locational characteristics necessary to attract targeted industries. On the other hand, existing partially vacant and redevelopable parcels along Highway 99E and the railroad tracks provide *expansion* opportunities for existing Woodburn firms.

Employment Land Needs

Goal 14, Land Need factor (2), recognizes that changes to a UGB may be based on demonstrated need for employment opportunities.

Commercial Land Needs

A commonly-accepted method of projecting commercial land need (and one that has been acknowledged in many Oregon plans) is to determine the existing ratio of developed commercial acres to population, and multiply this ratio by projected population growth. Using this method, Woodburn would need 310 net buildable commercial acres to meet 2020 commercial land needs. Since Woodburn has 108 net buildable commercial acres within the existing UGB,[16] this would result in a need for an additional 202 net buildable commercial acres.

[16] The Council worked closely with City staff to identify the portions of commercial sites within the existing UGB that are not being used for buildings or parking, and accounted for these areas as vacant.

The Council did not use this method, because the Council has intentionally under-allocated commercial land to encourage redevelopment along Highway 214, Highway 99E and in Downtown Woodburn. As explained further in Part II of this Report, as a measure to increase land use efficiency, the Council assumed that most future commercial and government employment will occur on existing commercial lands through intensification and redevelopment. In addition, the need for highway commercial uses can be met to a limited extent within the Southeast Commercial Exceptions Area. That Highway 99E area has a range of low-intensity development uses. The City has assumed that strip commercial properties along Highway 99E and Highway 214 will redevelop over time, thus reducing the need to designate new commercial areas on resource land.

To meet future commercial land needs, including the need for nodal neighborhood commercial centers, the Council has added to the existing UGB only 22 net buildable acres of Commercial land (about 6% of the existing Commercial land base). These 22 net buildable acres include the following:

- 11 net buildable general commercial acres within existing commercial exception areas adjacent to the existing UGB;
- 9 net buildable neighborhood commercial acres in the Parr Road Nodal Development area; and
- 2 net buildable neighborhood commercial acres along Boones Ferry to the north of the existing UGB.

The Council notes that providing neighborhood commercial centers near higher density nodal residential development also meets a community livability need. Such centers are accessible by pedestrians and bicyclists, and are required by the WDO to have public plazas that increase opportunities for relaxation and community events. Therefore, the Council concludes that neighborhood community centers provide increased "livability" opportunities by encouraging healthful exercise and increased human interaction.

Industrial Land Needs

ECONorthwest prepared the *Woodburn Economic Opportunities Analysis* (EOA) in May 2001. The EOA considered Woodburn's comparative advantages and identified the types of employment and industries that Woodburn can reasonably attract during the planning period. To address ORS 197.712 (Economic Development) and Goal 9 (Economy of the State) requirements, ECONorthwest also determined the types of sites that will be needed to attract targeted industries in a subsequent document entitled "Site Requirements for Woodburn Target Industries" (October 2003). These documents recognize the City's locational advantages and outline a strategy for the City to target specific industries that Woodburn has a reasonable chance of bringing to the City. Both documents conclude Woodburn will need additional land with specific size and access characteristics to achieve the City's economic development goals. These two ECONorthwest documents serve as the basis for determining Woodburn's employment land needs by site size through the Year 2020.

The employment land needs analysis in ECONorthwest's "Site Requirements for Woodburn Target Industries" (October 2003) concluded that about 370 acres would need to be

developed for basic employment uses to accommodate a mid-range need of 7,140 new employees between 2000 and 2020, based on employee-per-acre ratios.[17] However, to attract targeted industries Woodburn must provide choice among and an adequate inventory of suitable sites. Under the site suitability method, it is possible that some sites may not fully develop during the planning period, either because a portion of the site will be held for future development or because a reserved site will not be selected by a targeted industry. As noted below, the proposed Plan includes measures to ensure that designated industrial parcels remain in agricultural use until a targeted employer needs them.[18] Plan measures also ensure that such parcels cannot be re-designated for commercial use.

Woodburn's employment land needs are designed to meet ORS 197.712 and the Goal 9 Rule (OAR Chapter 660, Division 009) requirements that cities "identify the types of sites that are likely to be needed by industrial and commercial uses which might expand or locate in the planning area." To be clear, industrial site needs are not based on floor-area ratios or employee per acre ratios. Table 1 includes a select group of sites that have a reasonable likelihood of meeting the needs of targeted employers. This group of sites totals slightly less than 500 acres.

Table 1. Summary of estimated industrial site needs by size, Woodburn 2000-2020

Site Size (acres)	Number of Sites	Average Site Size	Estimated Acres
100 or more	1	125.0	125.0
50-100	1	70.0	70.0
25-50	3	35.0	105.0
10-25	5	15.0	75.0
5-10	7	8.0	56.0
2-5	10	4.0	40.0
Less than 2	15	1.0	15.0
Total/Average	**42**	**11.6**	**486.0**

Source: ECONorthwest

Refined Target Industry Site Suitability Analysis

When Metro conducted its industrial siting analysis in 2004, it applied three basic criteria to identify suitable blocks of industrial land:

[17] As noted above in the section titled "Year 2020 Employment Projection", Woodburn assumed ECONorthwest's high employment projection. The Council believes that the site needs indicated in Table 1 will be sufficient to accommodate the higher employment projection as well.

[18] The land will remain in EFU zoning until annexed to the City. A master plan is required prior to annexation, that will ensure retention of large parcels called for in the EOA. At Marion County's request, the Council has adopted a plan policy requiring industrial users to sign a covenant agreeing not to complain about agricultural operations in the area.

- access to transportation facilities (within two miles of a major interchange);
- proximity to other industrial uses (within one mile); and
- less than ten percent slope.

In 2003, Winterbrook applied similar locational need criteria to identify sites for targeted employers. Suitable industrial sites must:

- Be comprised of large blocks of land contiguous to or within the existing UGB;
- Have direct access to the I-5 / Highway 214 interchange via an existing or planned arterial street;
- Be located to avoid truck traffic through existing or planned urban residential neighborhoods;
- Minimize potential conflicts with existing or planned residential areas by minimizing common boundaries;
- Be located to take advantage of existing or proposed arterial streets that direct industrial traffic to Highway 214 west (rather than east) of the interchange to access I-5;
- Be located within a two mile radius of the I-5 interchange;
- Be adjacent to existing industrial development;
- Have five or less percent slope;
- Meet size requirements outlined by ECONorthwest (October 2003 memorandum entitled "Site Requirements of Targeted Industries" and summarized on Table 1 of this Report);
- Be serviceable within the next 0-15 years with sanitary sewer, water and storm drainage facilities; and
- Avoid Class I agricultural soils; then include first Class III soils and second Class II soils, if necessary to serve otherwise suitable sites with Class III soils.

As a result of this site suitability analysis, the City allocated land for targeted employers in Study Areas 7 and 8, within the Southwest Industrial Reserve (SWIR). The SWIR is comprised of large, flat sites that can be provided readily with urban services and which have direct access to the west side of Interstate 5 via the Evergreen Arterial Extension, the South Arterial, Butteville Road and Highway 214. Evergreen Road and the Parr Road Neighborhood Commercial area serve as buffers between the SWIR and planned residential development to the east.

Employment Land Needs Conclusions

Table 2 below shows a comparison between the supply of industrial sites within the existing UGB and the 2020 basic employment site needs determined by the EOA and ECONorthwest's Site Requirements Analysis.[19] Woodburn has a shortage of sites in all

[19] Buildable Lands Inventory drafts through 2004 indicated industrial sites totaling 127 net buildable acres inside Woodburn's existing UGB. These sites included all partially developed and potentially redevelopable sites identified by Winterbrook when the initial draft of the BLI was created in 2002. Staff contacted owners of identified partially vacant and potentially redevelopable sites in 2005, and determined that many were being held for expansion of existing uses, or actually being used by the existing owner for storage necessary to the existing use. These sites were determined to be unsuitable to meet the siting needs for new industrial firms. Thus, the supply of potential industrial sites within the existing UGB dropped to 23, totaling 47 acres.

categories over 2 acres in size. There is a severe shortage of medium to large industrial sites available to meet the identified site requirements. Overall, Woodburn has a deficit of 20 industrial sites over 2 acres in size, totaling about 435 acres.

Table 2: Target Industry 2020 Site Needs Compared with 2002 UGB Supply

Lot Size (Acres)	2020 Needed	2002 UGB Supply*	UGB Surplus (Deficit)
Under 2	15	16	1
Total Acres	15	8	(7)
2 to 5	10	5	(5)
Total Acres	40	18	(22)
6 to 10	7	1	(6)
Total Acres	56	8	(48)
11 to 25	5	1	(4)
Total Acres	75	11	(64)
26 to 50	3	0	(3)
Total Acres	105	0	(105)
51 to 100	1	0	(1)
Total Acres	70	0	(70)
100 +	1	0	(1)
Total Acres	125	0	(125)
Total Sites	**42**	**23**	**(19)**
Total Acres	**486**	**45**	**(441)**

Source: Winterbrook Planning

*Minor discrepancies in acreage due to rounding.

As shown in Table 3 below, the amended 2005 UGB has a deficit of 1 site in the 10-25 acre category and 1 site in the 2-5 acre category; counter-balanced by a surplus of 1 site in the 5-10 acre category[20], and a surplus of 1 site in the under 2 acre category. Rather than expand the UGB further to add parcels in these ranges, the Council felt it prudent to rely on three possibilities for meeting these needs:

- First, there is a partially vacant parcel of 19 acres within the 2002 UGB that is being held for future expansion. If the existing industrial owner of this site changes expansion plans, this site may become available.
- Second, if large sites develop at the lower end of their potential site ranges (e.g. 50 instead of 70 acres), additional sites in the 10-25 acre range may become available in the SWIR industrial park areas.
- Third, the City re-designated a site in the 5-10 acre category inside the existing UGB from Open Space to Industrial, which can be used to meet the need for sites of smaller sizes.

[20] An additional site in the 5-10 acre category was created in 2005 inside the existing UGB through re-designation of land from Open Space to Industrial.

Table 3: Target Industry 2020 Site Needs and 2005 UGB Supply

Site Size (Acres)	2020 Needed	2005 UGB Supply	UGB Surplus (Deficit)
Under 2	15	16	1
Total Acres	15	8	(7)
2 to 5	10	9	(1)
Total Acres	40	30	(10)
5 to 10	7	8	1
Total Acres	56	57	1
10 to 25	5	4	(1)
Total Acres	75	56	(19)
26 to 50	3	3	0
Total Acres	105	103	(2)
51 to 100	1	1	0
Total Acres	70	65	(5)
100 +	1	1	0
Total Acres	125	96	(29)
Total Sites	**42**	**42**	**0**
Total Acres	**486**	**407**	**(71)**

Source: Winterbrook Planning and ECONorthwest

"Base Case" Residential Land Needs

Goal 14, Land Need factor (2), provides that changes to a UGB may be based on demonstrated need for housing.

In Technical Report 2 – Residential Land Needs Analysis (RLNA), Winterbrook determined Woodburn's residential land needs based on the requirements of ORS 197.296 and Statewide Planning Goals 10 (Housing) and 14 (Urbanization). This section considers two "base case" scenarios from which to determine the housing and buildable land area needs for residential uses for the 18-year planning period, from 2002 to 2020. Part II of this Report considers the results of the housing needs analysis and identifies land use efficiency measures that enable the City to provide affordable housing opportunities and reduce its need for buildable residential land.

Alternative 1: Residential Land Needs Based on Actual Housing Mix and Density

The first "Base Case Scenario" described below is based on "actual housing mix and densities" observed from 1988-2002 (Technical Report 2, Woodburn Residential Land Needs Analysis, Table 8), as prescribed by ORS 197.296(4)(a). Implementation of this base case scenario would not require additional plan policy or code text amendments.[21] Implementation of this "actual development" scenario would, however, require

[21] Currently, Woodburn has two residential plan designations: Low Density Residential and High Density Residential. Three zones implement these designations: Residential Single Family, Retirement Community Single Family Residential, and Medium Density Residential.

comprehensive plan map, urban growth boundary and (eventually) zoning map amendments.

For the base case scenario based on actual development, Winterbrook:

1. Determined the actual mix and density of dwelling unit (DU) types in new developments (from 1988 to 2002);
2. Used ECONorthwest's projected, and Marion County's (then) interim planning, population projection of 34,919;
3. Applied the 2000 US Census ratio of institutional population to projected population increase and subtracted these 337 "institutional" residents from the population growth for purposes of dwelling unit need;
4. Assumed a projected average household size figure of 2.9;[22] and
5. Applied an average occupancy rate of 95% (or a vacancy rate of 5%[23]) to all housing types.

Winterbrook determined the number of needed dwelling units (DU) by multiplying the actual mix by the population increase, dividing by household size, then dividing by occupancy rate. Winterbrook determined needed acres by dividing the number of dwelling units by actual density. The above factors were then applied to create Table 3A.

Table 4 shows a need for 4,968 dwelling units and about 680 net buildable residential acres, using the above methods. Table 4 shows the housing mix and density experienced in Woodburn over the last 14 years and one possible zoning allocation that can achieve 7.25 dwelling units per acre. Table 4 does not include need for Public and Semi-Public uses, which is discussed in the following Public and Semi-Public Use Land Needs section. Nor does this base case scenario consider inefficiencies that result from converting highly-parcelized land within built and committed exception areas to urban residential uses.

Finally, based on testimony received from Renaissance Homes, the Council finds that there is a "special need" for higher end housing adjacent to the OGC Golf Course. Renaissance Homes testified that they have been able to meet a specific market niche for higher end housing in Woodburn *solely* because of the golf course views and open space available in the Tukwila Planned Unit Development. The Council notes that higher paid executives in existing and future Woodburn firms also are more likely to reside in Woodburn (rather than

[22] The actual household size has risen sharply in Woodburn from 2.7 in 1990 to 3.1 in 2000. This increase can be attributed largely to in-migration of families with small children. Winterbrook projected a return in household size over the next 20 years (reflecting national trends and cultural shifts) to 2.9 persons per household. There is a direct relationship between the success of Woodburn's Economic Development Strategy and household size: as household incomes and educational levels increase, household size typically decreases.

[23] The 2000 US Census shows overall vacancy rates in Woodburn of 8%. This is a substantial increase from 1990's overall vacancy rate of 2.7%. As with household size, Winterbrook projected a *midrange* vacancy rate of 5%.

in Portland, Salem or rural Marion County) if such higher-end, higher-amenity homes were available within the Woodburn UGB.

Table 4: Residential Land Need Based on Actual Development

Type	Percent	Units	Net Density	Needed Net Buildable Acres
Detached Single Family Residential	43%	2,136	6.05	353.1
Multiple Family Residential	31%	1,540	16.31	94.4
Duplex	1%	49.68	12.56	4.0
Manufactured Homes	24%	1,192	5.23	228.0
Totals	**100%**	**4,968**	**7.25**	**679.5**

Source: City of Woodburn; Residential Land Needs Analysis, Winterbrook Planning

As explained in the Residential Land Needs Assessment (RLNA), Woodburn has two major population cohorts: a rapidly growing young population that will continue to grow and mature over the next 20 years, and an elder population that should remain fairly stable. Woodburn is doing a reasonable job of providing affordable housing, but can take steps to provide a greater variety of housing types at higher densities. Part of the affordable housing "problem" is that the new, young population lacks the financial resources for home ownership. This problem is considered in the Oregon Housing and Community Services (OHCS) alternative analyses below.

Base Case 2: Application of the OHCS Residential Land Needs Model

The OHCS Housing Needs Model was applied in 2003 as a means of checking the Housing Needs Analysis prepared by Winterbrook Planning. For an alternative base case analysis, Winterbrook applied The Housing Land Needs Model developed by OHCS without considering potential impacts from higher incomes resulting from a successful economic development strategy.

Winterbrook ran the model using the coordinated population projection of 34,919, a Year 2020 planning period, an average household size of 2.9, and approximately 200 other assumptions related to housing type, rental status, and price/rent levels (see RLNA, Attachment A). Due to Woodburn demographics and Hispanic preferences for homeownership, Winterbrook assumed a high demand for affordable homeownership opportunities, which translates into a need for small-lot single-family and townhouse (single-family attached) development.

The Housing Needs Model produced the results shown on Table 4A. Approximately 385 net acres are needed for Low Density Single Family (LDSF), 116 for Medium Density Single Family (MDSF), 94 for High Density Single Family (HDSF), 15 for Manufactured Dwelling Park (MDP), 27 for Low Density Multi-Family (LDMF), 57 for Medium Density Multi-Family (MDMF), 14 for High Density Multi-Family (HDMF), and 6 for Mixed-Use (MU). The total acreage needed to serve the 2020 dwelling unit growth of approximately 5,000 units requires about 714 net acres (about 34 acres more than was projected using the "actual

housing mix and densities" method). This represents the total amount of buildable residential land needed to accommodate the projected 14,059 population increase over approximately the next 18 years.

Table 4A: 2020 Needed Net Buildable Acres for Housing Based on OHCS Model

	LDSF	MDSF	HDSF	MDP	LDMF	MDMF	HDMF	MU	Total
Acres Needed	385.1	115.8	94.0	15.4	27.4	56.7	14.0	5.5	713.7

Source: Residential Land Needs Analysis, The Housing/Land Needs Model; Winterbrook Planning

The 2005 Housing Needs Model Run

In September of 2005, Winterbrook worked with Richard Bjelland of OHCS to run The Housing Needs Model a second time. The purpose of this second run was to:

1. Incorporate data from ECONorthwest regarding projected increases in household income resulting from successful implementation of Woodburn's Economic Development Strategy;

2. Consider the effects of higher density nodal zoning districts; and

3. Test the housing needs projection developed by Winterbrook and recommended to the City Council by the Woodburn Planning Commission.

The 2005 run of The Housing Needs Model produced the results shown on Table 3C. In the 2005 Model run, approximately 330 net acres are needed for Single Family Residential (RS), 62 for Medium Density Residential (RM), 208 for Nodal Single Family (RSN), and 68 for Nodal Medium Density (RMN). Thus, Housing Needs Model projects that approximately 667 net buildable acres will be needed to serve projected dwelling unit need through the Year 2020. This represents the total buildable residential acreage needed to accommodate the projected 14,059 population increase from 2002-2020 assuming that needed housing occurs at 80% efficiency.[24]

The 2005 model run produced a land need estimate that is approximately:

- 12 net buildable acres fewer than indicated using the "actual housing mix and densities" method that must be considered under ORS 197.296;
- 47 net buildable acres fewer than resulted from the 2003 Housing Needs Model run; and
- 33 net buildable acres more than projected in the Winterbrook Housing Needs Analysis.

[24] Note that none of the land need projections above consider the effect of lower densities expected to occur in highly-parcelized Exceptions Areas.

Thus, The Housing Needs Model continues to identify for slightly more land than the 2003 Winterbrook Housing Needs Analysis. As noted by Housing Needs Analyst and City Councilor Bjelland during Council deliberations, the differences between the two methods are within acceptable margins of error. Both analyses support the need more affordable multiple-family housing and single-family residential development, as provided by Woodburn's new "nodal" overlay zones. However, the Council has relied on the Winterbrook housing needs analysis because it provides a more conservative 2020 residential land needs estimate (requiring less agricultural land) and because it served as the basis for the Woodburn Planning Commission's recommendations and reviews by Marion County staff and DLCD.

Table 4B: 2020 Needed Net Buildable Acres for Housing Based on 2005 Application of OHCS Housing Needs Model

	RS	RSR	RM	RSN	RMN	Total
Acres Needed	329.6	0.0	61.6	207.8	68.2	667.3

Source: Residential Land Needs Analysis, The Housing/Land Needs Model; Winterbrook Planning

Specific Need for Higher-End Single-Family Detached Housing

The Council has also identified a need for higher-end single-family detached housing to meet future housing needs in Woodburn. Therefore, Winterbrook queried the Housing Needs Model to determine the number of higher-end, detached single-family units needed through the year 2020.

The model determined a need for 1,074 higher-end housing units to meet the specific need for higher-income families in the Housing Needs Model's highest price range ($212,500+ in 1999 dollars). This represents approximately 19% of the total number of new housing units that are needed to meet Year 2020 housing needs in Woodburn. It is anticipated that most of this need will be met on Class II soils near the OGC Golf Course in Study Area 2 (North). (The UGB expansion area in Study Area 2 can accommodate approximately 825 new single-family residential dwellings at 5.5 units per net buildable acre.)

Base Case Housing Need Conclusions

A major part of Woodburn's Economic Development Strategy (EDS) is to take advantage of its growing workforce by creating opportunities for jobs to locate in the area. If Woodburn is successful in attracting these jobs, the buying power of residents will improve in relation to housing costs. Thus, while Woodburn can benefit from a wider range of housing types, and should allow the opportunity for multi-family and small lot single-family residences to develop, it is important to continue to supply single-family home ownership opportunities as well. The City also has a special need for higher-end homes near the OGC Golf Course to provide housing for future executives in firms that choose to locate in Woodburn.

Without the adoption of land use efficiency measures, as discussed in Part II of this Report, Woodburn would require from 667 to 714 net buildable acres of residential land to meet its housing needs through the year 2020. As noted below, with efficiency measures, the City will need approximately 117-160 fewer net buildable acres. This range assumes relatively

large buildable parcels, and does not account for inefficiencies in land development that occur when built and committed exception areas are converted to urban residential uses.

Public and Semi-Public Land Needs

Goal 14, Land Need factor (2) recognizes that changes to a UGB may be based on demonstrated need for "livability or uses such as public facilities, streets and roads, schools, parks or open space."

Public and semi-public facilities such as schools, hospitals, churches, government buildings, and parks will expand as population increases. Such uses are necessary to support planned population growth and (in the case of parks, open space and schools) increase the livability of residential neighborhoods. In Woodburn, such uses typically locate on land designated for residential use.

Public and semi-public land needs are shown in Table 5 below. Park standards described in the 1999 Woodburn Parks and Recreation Comprehensive Plan Update were used to determine the need for buildable and unbuildable (natural area parks) land to accommodate parks and schools.

To project land needs for public and semi-public lands, the City categorized land uses by type: schools, parks, institutional, religious, natural areas, and government. The City approached each type slightly differently:

- **Schools** – The City used the ratio of developed school land to population described in the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update* – about 5 acres per 1,000 residents -- and extended that ratio to the projected Year 2020 Woodburn population to determine land needed for schools. In 2004, the Woodburn School District reviewed Winterbrook's projection and determined that Woodburn needed approximately 48 additional acres beyond Winterbrook's original projection to meet school needs through 2020.[25] Woodburn currently has about 115 developed acres of land for schools, and needs approximately 223 total acres by 2020. This means there is a need for 108 vacant buildable acres to accommodate a new high school, a new middle school and two new elementary schools.

- **Parks** – The City used the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update* to project park needs through 2020. The 1999 Update recommends using a ratio of 7 acres per 1000 population to project need for neighborhood and community parks. The ratio was applied to the projected 2020 population of 34,919, and then existing parkland was subtracted to determine needed park acreage. The Parks Plan indicates that some of Woodburn's park needs will be met on school lands. Therefore,

[25] August 30, 2004 letter from Woodburn School District. The District has a 20-year planning horizon. In order for the second new high school to be operational by 2024, the land will need to be purchased on or before 2020. This would allow sufficient time for land to be annexed to the City, a bond measure passed, and the high school designed and constructed.

the City assumed that 50% of all needed 2020 school lands would also serve to meet park needs, and that amount was added to the parks supply. Woodburn currently has about 87 acres of parks and recreational land in use (plus about 112 acres of 2020 school lands), and needs about 262 acres total to meet the recommended ratio. This means there is a need for about 63 additional acres of parklands by the year 2020.

- **Institutional** – Woodburn currently has 500 residents who live in "institutions", according to the 2000 US Census, and has had no additional institutional development from 2000-2002. The City applied the existing ratio to a projected 2020 population of 34,919, projecting an institutional population growth of approximately 337 through 2020. The City applied a ratio of 30 residents/units per net acre (the maximum allowed under current zoning), which translated to an 11-acre need in this category.

- **Religious** – The City applied a ratio of 2 acres per 1,000 population growth for religious uses. The 2002-2020 population growth forecast of 14,059 translated to a need for approximately 28 acres for religious use.

- **Natural Areas** - The City put protected riparian corridors, locally significant wetlands and floodplains into this category. The 1999 Woodburn Parks and Recreation Comprehensive Plan Update did not project a need or contain a standard for natural areas. However, natural areas can provide trail systems and natural pathways for Woodburn residents. According to the 1999 Update, there were 1.22 acres of greenways, open space, and trails/pathways per 1000 population in Woodburn. Extending this ratio to the projected 2020 population projection of 34,919 would require 42.6 acres for greenways, open space, and trails/pathways. There are approximately 129 constrained (unbuildable) riparian, wetland and floodplain acres in Woodburn available to meet this generalized need. Therefore, no additional buildable land is required.

- **Government** – Projected government employment growth through 2020 is 252 employees. Using an employee/acre ratio similar to that for commercial employment yields a land need of slightly less than 13 acres. There are approximately 5 vacant publicly owned acres of land to help meet this need. The City assumed that the remainder of the government employment land need will be met through redevelopment of commercial areas and intensification of use of existing government-owned property. Therefore, no additional residential land is needed to accommodate government employment growth.

The supply of public and semi-public land in Woodburn's 2002 UGB shown in Table 5 was determined in Technical Report 1, Buildable Lands Inventory.

Table 5: Year 2020, Public and Semi-Public Land Needs

Type	Supply	Need	Difference
Schools Net Acres	115	223	-108
Parks Acres	199	262	-63
Institutional Net Acres	0	11	-11
Religious Net Acres	0	28	-28
Natural Areas Acres*	129	42.6	86
Government Net Acres*	5	13	-8
Total Net Buildable Residential Deficit			**-210**

Source: Woodburn Parks and Recreation Comprehensive Plan Update; 2000 US Census; Winterbrook Planning

* These acreages are not counted toward total residential deficit.

Based on Woodburn's plans, and actual ratios of population to land occupied by public and semi-public uses, Woodburn will need about 108 net buildable acres for schools, 63 acres for parks, 11 acres for institutional uses, and 28 acres for religious uses, through 2020. The City relied on redevelopment of existing commercial and public lands to meet government employment needs. Since parks, schools, institutional uses, churches, and similar public/semi-public uses typically require a location in a residential zoning district, such public and semi-public use needs add to the demand for vacant buildable residential land. In summary, Woodburn requires approximately 210 additional net buildable acres of Residential land to meet its 2020 public and semi-public use land needs.

Recap of Base Case Residential Land Needs without Efficiency Measures

Without land use efficiency measures (i.e., relying on existing plan designations and zoning), from 2002 to 2020 Woodburn will require approximately 680-714 net buildable acres of residential land for housing, and 210 net buildable acres for public and semi-public uses. The total amount of residential land needed for Woodburn during the planning period without land use efficiency measures would be 890-934 acres. Again, this need range does not account for land use inefficiencies that result when built and committed exception areas are converted to urban residential use – as required by Goal 14 and ORS 197.298. However, these inefficiencies are accounted for in Part II of this report.

Buildable Lands Inventory

In Technical Report 1, Buildable Lands Inventory (BLI), Winterbrook determined the buildable land area, on a parcel-by-parcel basis, within the 2002 Woodburn UGB. BLI information was also used by ODOT for modeling transportation impacts from three preliminary land use scenarios.[26]

After completing a Residential Land Needs Analysis, reviewing transportation options, and conferring with Woodburn staff, Winterbrook amended Technical Report 1 to account for changes proposed in the "2005 Plan". The "2005 Plan" is the adopted Plan and UGB amendment package, to meet identified needs for residential, public, and employment lands. As discussed below, the 2005 Plan includes (1) amendments to the Woodburn UGB to increase land supply, and (2) measures to increase land efficiency and residential densities within both the existing UGB and the proposed UGB expansion area.

The BLI consists of a Year 2002 GIS database that describes the gross area and net buildable area of each tax lot within the UGB by comprehensive plan designation and existing zoning. Net buildable area is determined by subtracting topographical constraints and infrastructure requirements from the gross area of each tax lot.

The BLI and associated Buildable Lands Map show: (a) how much vacant, infill, or potentially redevelopable land is available to meet future residential, public/semi-public, commercial, and industrial land needs; (b) where these parcels are; and (c) the size and constraints of each parcel.[27]

Buildable Lands Inventory Overview

Table 6 (Buildable Lands Summary) provides the net buildable area, in acres, of land in each comprehensive plan designation inside Woodburn's existing UGB as of 2002. Table 7 (Lots by Size) provides the buildable area in parcels of various sizes by plan designation. Tables 5 and 6 correspond to Tables A and B in Technical Report 1 (Buildable Lands Inventory) and do not include proposed UGB expansion areas.

[26] To ensure that relationships between transportation and land use were considered early in the process, ODOT used data from the BLI to inform Periodic Review Task 2 (Coordination with ODOT), and by association Statewide Planning Goal 12 (Transportation), by estimating household and employment capacity within the 2002 UGB. ODOT used this information to model impacts of development alternatives on the transportation system from each Transportation Analysis Zone (TAZ).

[27] The capacity for residentially-designated parcels to meet residential land needs is considered on a parcel-by-parcel basis, rather than on a aggregate land area basis. For example, a two-acre parcel with an existing home zoned for 6,000 square foot lots will have some left-over land. After accounting for streets (20% of the 87,120 square-foot parcel) and the existing home (one-fifth of an acre or 8,712 square feet), 60,984 square feet remain. At 6,000 square feet per lot, the buildable area of the parcel can accommodate 10 legal lots, leaving an "extra" 984 square feet. Because land usually develops on a parcel-by-parcel basis, it would be unrealistic to assume that this left-over land will be used by another developer.

Table 6: Buildable Lands Summary within the 2002 UGB

Plan Designation	Total Acres	Net Buildable Acres	Unit Capacity (RES) or Employee Capacity (IND, COM)
Commercial	599	108	2,135
Industrial	685	47	658
Residential <12	1,478	403	2,190
Residential >12	385	108	1,256
Public (open space)	94 (583)	6	NA

Source: Winterbrook Planning

*Acreage available for new targeted industries was reduced from 126 to 47 based on property owner interviews, as described in the Employment Land Needs section. The remaining 79 acres are being held for future expansion by existing Woodburn firms, and thus will accommodate additional employees beyond the number shown in Table 6.

Table 7: Lots by Size (in Buildable Acres)

Plan Designation	Lots < 1 Acre	Lots 1-5 Acres	Lots 6-10 Acres	Lots 11-20 Acres	Lots 20-50 Acres	Lots >50 Acres
LDR	313	24	2	4	3	1
MDR	40	10	2	3	0	0
Commercial	49	13	2	1	1	0
Industrial*	11	10	1	1	0	0

Source: Winterbrook Planning

* The number of available industrial parcels also was reduced based on property owner interviews conducted in 2005, as described in the Employment Land Needs section.

The 2005 Buildable Lands Inventory (BLI) included optimistic assumptions regarding residential infill and partially developed residential, commercial and industrial lands. For example, the BLI reserved only one-fifth of an acre for existing homes on partially developed lots (compared with one-half acre assumed by Metro), and assumed that the remainder of the lot would develop at densities permitted by zoning. The BLI also looked carefully at partially developed industrial and commercial parcels, was based on interviews conducted with property owners, and assumed that unused portions of parcels that were not planned for expansion of the existing use would be available to meet new industrial and commercial siting needs.

PART II. AFFORDABLE HOUSING AND LAND EFFICIENCY MEASURES (ORS 197.296; GOAL 14: ACCOMMODATING NEEDS INSIDE UGB)

The Land Need section of Goal 14 requires a demonstration that identified land needs cannot reasonably be accommodated on land already inside the UGB by increasing land use efficiency. Goal 14, Land Need, provides that:

> ***"Prior to expanding an urban growth boundary, local governments shall demonstrate that needs cannot reasonably be accommodated on land already inside the urban growth boundary."***

As explained above, in this case, these standards require a demonstration that the projected needs for urban uses cannot be accommodated within the City's existing UGB, either by locating the needed uses on vacant buildable land within the UGB or by increasing the existing or future density and efficiency of uses within the UGB.

The City considered several alternatives and analyzed several measures to increase the intensity and efficiency of land use in Woodburn, prior to determining the need for UGB expansion. These land use intensification measures are described in Woodburn Comprehensive Plan Goal and Policy Amendments, WDO Revisions, and Technical Report 3 (Residential Land Needs Analysis). These intensification measures include provisions for infill and redevelopment, increased density, master planning and nodal development – all of which increase efficiency of land use.

The Council particularly notes the following provisions that encourage land use efficiency:

- The *Woodburn Comprehensive Plan* would provide *opportunities* for densities in excess of 10 dwelling units per net buildable acre outside of highly parcelized exception areas. By constraining the residential land supply based on optimistic density assumptions, land prices will increase, which in turn is likely to increase land use efficiency.
- Except for the developed MacLaren Youth Correctional Facility, all exception areas adjacent to the UGB are included within the expanded 2005 UGB. As noted above, the City has assumed that densities in exception areas will be greater than those actually experienced on infill parcels within the Woodburn City Limits from 1988-2002.
- Woodburn applied highly conservative assumptions for new Commercial land (only 22 additional buildable commercial acres are added to the UGB for the 18-year planning period), and prohibited Commercial plan amendments near Interstate 5 that would increase net commercial land area.
- Woodburn made liberal assumptions regarding redevelopment of commercial land, "infill" on residential land inside the existing UGB as well as in rural residential exception areas, and the availability of undeveloped portions of existing industrial land.
- The Woodburn Comprehensive Plan includes strong measures to ensure that industrially designated land within the Southwest Industrial Area (SWIR) is retained in agricultural use until targeted employer requirements are met.

- The Comprehensive Plan and WDO include limitations on division of parcels in the SWIR to insure that sites of sufficient size to satisfy requirements of target industries remain available.
- The Comprehensive Plan and WDO require master planning for the SWIR and the Parr Road Nodal Development Area prior to annexation and provision of urban services.
- Minimum density requirements for all residential land.
- The RCWOD contains clear and objective protection measures for Woodburn's floodplains, wetlands and riparian corridors.

Built and Committed Exception Areas

Marion County EFU zoning maintains large lot sizes parcels within the unincorporated urbanizable area. EFU zoning will continue to apply to such lands until Woodburn approves a master plan showing maximum efficiency of land use , the land is annexed, and urban zoning has been applied.

Woodburn has four exception areas adjacent to the 2002 UGB[28]:

- Butteville Road Rural Residential Exception Area (155 gross acres)
- Northeast (Hwy 99E) Rural Residential Exception Area (13 gross acres – completely developed as a manufactured dwelling park)
- MacLaren School Institutional Exception Area
- Southeast (Hwy 99E) Residential/Commercial Exception Area (35 gross acres)

Except for the MacLaren School, all exception areas adjacent to the Woodburn UGB are included within the 2005 UGB. The Butteville Road residential exception area contains 108 net buildable acres, but due to the existing parcelization and development pattern, this land cannot meet residential land needs as efficiently as would large, vacant parcels (See Attachment 1: Development Pattern of Exception Area). As shown in Table 8 below, the median parcel size in the Butteville Road Exception Area is less than two acres. Only 2 of the 61 residential exception area parcels in the Butteville Road Exceptions Area are between 6-10 acres in size.

[28] Information in Technical Report 3 related to exception areas has been refined through additional GIS analysis of the areas.

Table 8: Butteville Road Exception Area Parcel Characteristics

Site Description	Exception Area Parcels
Sites <2ac	43
Acres	44
Sites 2-5ac	16
Acres	47
Sites 6-10ac	2
Acres	17
Total Sites	**61**
Total Acres	**108**

Source: Winterbrook Planning

During the 5-year period from 2000 through 2004, Woodburn approved 8 land division applications for residential parcels under 5 acres with existing residences – parcels that would be defined by this study as "potential infill" or "partially developed". These land divisions comprised a total of 9.8 acres and 24 lots, for an average total post-division density of 2.4 units per gross acre. The 2.4 unit-per-acre density includes the original house and lot. Thus, the Council assumes that exception area parcels (at 3 new units per net acre on undeveloped portions of each exception area lot[29]) will develop at densities comparable to, but slightly higher than, those of existing lots of less than five acres in the City Limits.

This assumed infill density for exception areas is slightly higher than the actual infill density that has occurred inside the existing Woodburn city limits over the last five years. This assumption is optimistic because the infill and partially developed parcels were inside the city limits with urban services, whereas the exception areas lie at the UGB fringe, are outside the city limits, and currently do not have urban services. Moreover, public testimony at work sessions indicated strong opposition from most property owners to inclusion within the Woodburn UGB because they feared increased urban densities. Thus, it is probable that some parcels within built and committed exception areas will remain undeveloped during the planning period.

The need for low-density infill housing can be accommodated to a limited extent within the Butteville Road Exception Area. The Butteville Road Exception Area has the capacity for limited infill at an estimated density of 3 units per net buildable acre, after subtracting a fifth of an acre for each existing house. At this density, the Butteville Road area has the capacity for 295 low-density residential units.

[29] The parcelization pattern and small size of many of these lots limit efficient development – causing a loss of "partial units" on individual lots. For example, an exception area lot that is 0.75 acres in size is expected to accommodate 2, rather than 2.27 units. This contributes to lower anticipated densities in built and committed exception areas, and explains why the capacity of the area's 108 net buildable acres is 295 units.

The Southeast Exception Area contains one large undeveloped parcel with approximately 7.5 net buildable acres adjacent to the south of a developed manufactured home park within the City Limits. This parcel has a Medium Density Residential Plan designation and development of this parcel is assumed to occur at the same density assumed for MDR sites within the existing UGB (14 units per net buildable acre), yielding a capacity for 105 medium density residential units. This exception area also includes approximately 11 net buildable commercial acres that were applied toward 2020 commercial needs.

The Northeast Rural Residential Exception Area is fully developed as a manufactured dwelling park and has no remaining development capacity.

The MacLaren School Exception Area is owned by the state and is meets statewide juvenile incarceration needs that generally are unrelated to Woodburn's institutional needs. This state facility already has urban services and is not available or appropriate for meeting long-term institutional needs of Woodburn.

New Residential Plan Designations and Zoning

In order to provide buildable land for needed housing types in Woodburn (as identified by the OHCS Land Needs Model and by Winterbrook's land needs analysis), the City has adopted two new "nodal development" overlay districts: Nodal Single Family Residential (RSN) and Nodal Multi-Family Residential (RMN). Vertical mixed use is allowed in the Commercial plan designation where implemented by the Downtown Development and Conservation district; and in floors above ground floor commercial in the Nodal Neighborhood Commercial District.

There are six zoning districts (two mixed use and four residential) that are available to meet housing needs in Woodburn:

- **Residential Single Family (RS)**: This district allows stick-built single-family homes, manufactured dwellings (not parks), and some duplexes. Approximately 30% of new dwelling units are planned in this district.
- **Nodal Single Family Residential (RSN)**: This overlay district allows smaller lot single-family homes, zero lot line single-family dwellings, and manufactured homes in Residential Single Family zoned areas. Approximately 30% of new dwelling units are planned in this district.
- **Medium Density Residential (RM)**: This district allows duplexes, manufactured dwelling parks, and medium density multi-family dwellings. Approximately 20% of new dwelling units are planned in this district.
- **Nodal Multi-Family Residential (RMN)**: This overlay district allows slightly higher densities, and would allow condominiums, townhouses, and row houses in Medium Density Residential zoned areas. Approximately 20% of new dwelling units are planned in this district.

- **Downtown Development (DDC) and Nodal Neighborhood Commercial (NNC)**: Vertical mixed-use housing is allowed above retail and would be generally confined to the downtown area and Parr Road Nodal Commercial area. Approximately 1% of new dwelling units are planned in these districts.[30]

This amended zoning program substantially increases land use efficiency on buildable lands within the 2005 Woodburn UGB. *If Woodburn were to expand exclusively onto large tracts of agricultural land* (and not include built and committed exception areas), then the City would need 573 net buildable acres to accommodate needed housing through 2020. **This is from 85 to 107 fewer net buildable acres than would have been needed under the base case alternatives discussed above**.

However, the advantage provided by land use efficiency measures is counter-balanced in part by inclusion of residential exception areas, which develop at less efficient overall densities. The 2005 UGB includes all residential exception areas adjacent to the existing UGB. As shown in Table 9 below, even with the less-efficient exception areas, implementation of the new Nodal districts decreases residential land need to 634 net buildable acres through 2020 – about 46 net buildable acres less than would be needed if actual development trends were extended without land use efficiency measures (as shown in Table 4), and about 33 net buildable acres less than projected in the updated OHCS Model (as shown in Table 4B).

Table 9: Projected Residential Land Needs (Net Buildable Acres)

Plan	Net Assumed Density	Percent	Dwelling Units	Net Buildable Acre Need
LDR (RS)	5.5	24%	1,195	**217**
LDR in Exceptions Areas (RS)	3.0	6%	295	107
Nodal LDR (RSN)	8.0	30%	1,490	**186**
MDR (RM)	14.0	17.5%	864	**62**
MDR in Exceptions Areas	14.0	2%	105	**8**
Nodal MDR (RMN)	18.0	19.50%	969	**54**
DDC and NNC	16.0	1%	50	**0**
Subtotal Exceptions Area	**3.5**	8%	400	115
Subtotal Other Buildable Lands	**8.8**	92%	4,568	519
Total	**7.8**	**100%**	**4,968**	**634**

Source: Winterbrook Planning

Table 10 provides more detail on the distribution of housing by type and density within each Woodburn zoning district. To achieve the densities projected for each housing type, the City amended the Woodburn Comprehensive Plan and Development Ordinance. Thus, Woodburn adopted "measures" to increase density and provide for more affordable housing,

[30] Over 100% due to rounding.

as proscribed by ORS 197.296. These measures are included in adopted Comprehensive Plan and Development Ordinance amendments, and are outlined as follows:

- **Plan for Higher Density** – Woodburn's new zoning districts allow for cumulative maximum densities of about 10.3 dwelling units per net buildable acre, which compares favorably with the 8 dwelling units per gross buildable acre recommended in the *Marion County Urban Growth Management Framework Plan*. Assuming that development will occur at 80% of maximum permitted density (the minimum density permitted by the Plan and the WDO), Woodburn projects that new development through 2020 will occur at an overall density of 7.8-8.9 dwelling units per net buildable acre.[31] This is significantly higher than the actual density of about 7.25 dwelling units per net buildable acre developed between 1988 and 2002.

- **Multi-Family Mix** – Woodburn planned for a ratio of 60% single-family (including manufactured homes, with nearly 50% of the single-family as "small lot" single-family) and 40% duplex, attached single family or multi-family for new residential development in Woodburn through 2020.

- **Modify Zoning Districts** – Woodburn adopted two new overlay districts, Nodal Single Family Residential and Nodal Multi-Family Residential, and a new Nodal Neighborhood Commercial district that allows Vertical Mixed Use, in order to better meet housing type needs and allow for higher density in mixed-use node areas.

- **Mixed-Use Node** – Woodburn designated a nodal development area in the southwest portion of Woodburn, near Parr Road. This area will have a mix of multi-family, small lot single-family, and row houses, as well as a small neighborhood commercial center and a location near new industrial jobs.

- **Minimum Density Standards** – Woodburn incorporated minimum density standards for new subdivisions and planned developments in each of its residential zones. This standard will achieve at least 80% of maximum permitted densities.

[31] Projected densities are 80% of maximum densities, outside of exception areas planned for LDR. The 7.8 units per net buildable acre includes exception areas and other buildable lands; whereas the 8.9 figures excludes exception areas.

Table 10: Housing Need by Type, Density and Zoning District

Housing Type	Number of New Units	Percentage of New Units	Projected Net Density	Woodburn Zoning District
LDR and MH (Standard Lot)	1,145	23%	5.5	**RS ***
LDR and MH Exceptions Areas	295	6%	3	**RS**
Nodal SF (Small Lot)	1,490	30%	8	**RSN ***
Duplex	50	1%	8	**RS**
Duplex	50	1%	8	**RM ***
MH in MHP	199	4%	8	**RM**
Attached Single Family	99	2%	12	**RMN ***
Multi-Family	615	12%	14	**RM**
Multi-Family Exceptions Areas	105	2%	14	**RM**
Multi-Family	870	18%	18	**RMN ***
Multi-Family	25	1%	16	**DDC ***
Multi-Family	25	1%	16	**NNC ***
Totals / Percentages	4,968	100%	-	N/A

Source: Winterbrook Planning

* Indicates new adopted measure.

Table 11 on the following page compares buildable residential land supply in 2002 (before amendments to the comprehensive plan or UGB) and residential land needed after adoption of the measures described above. Within the 2002 UGB, there is a surplus of land designated for Low Density Residential and Medium Density Residential use, and a deficit of land designated for Nodal Low Density Residential and Nodal Medium Density Residential use. There is a need to include all available residential exception area land before any other land. This is accounted for in Table 11. There is also a deficit of residentially designated land for public and semi-public uses. Combined, this residential deficit totals 340 acres. The 2005 Buildable Lands Inventory (BLI) accounts for Comprehensive Plan changes and new planned street systems within the existing UGB that decrease residential land supply by approximately 30 acres. **This brings the net buildable residential lands deficit within the 2002 UGB to about 370 acres**.

To ensure zoning consistent with Comprehensive Plan designations, as well as provide opportunity for affordable housing, the City re-designated some lands inside the existing UGB to better provide for the City's housing needs through 2020. The unmet need for

approximately 370 acres of residential land supports the City's decision to expand the UGB by approximately 384 net buildable acres for residential and public/semi-public uses through 2020. This acreage is within 15 acres of the overall residential need, calculated on a aggregate basis. However, when the *capacity* of each parcel is considered individually (rather than in the aggregate), there is an under-supply of approximately 30 acres— slightly under the need when inefficient lot sizes are accounted for, slightly above when they are not. [32]

Table 11: 2020 Residential Land Needs (Net Buildable Acres) after Adoption of Land Use Efficiency Measures

Plan Designation	Acres Available	Acres Needed	Acres Surplus (deficit)
LDR	403	**217**	186
LDR Exceptions	0	**107**	(107)
MDR Exceptions	0	**8**	(8)
Nodal LDR	0	**186**	(186)
MDR	108	**69**	39
Nodal MDR	0	**54**	(54)
VMU	0	0	0
Public / Semi-Public	-	210	(210)
Totals	**511**	**851**	**(340)**

Source: Winterbrook Planning and City of Woodburn

[32] This figure represents total acreage, and does not indicate individual parcel capacity. Due to inefficient lot sizes within the existing UGB (e.g., a 7,000 square foot lot in a zone with a minimum lot size of 6,000 square feet), mainly within the areas planned for low density residential uses, **the actual capacity provided for residential dwelling units is approximately 30 acres lower than the total land supply would indicate.**

PART III: UGB LOCATIONAL ANALYSIS (ORS 197.298; GOALS 5, 7, 11-13; GOAL 14, BOUNDARY LOCATION FACTORS 1-4)

The Goal 14 Boundary Location section reads as follows:

> ***The location of the urban growth boundary and changes to the boundary shall be determined by evaluating alternative boundary locations consistent with ORS 197.298 and with consideration of the following factors:***
>
> ***(1) Efficient accommodation of identified land needs***
> ***(2) Orderly and economic provision of public facilities and services;***
> ***(3) Comparative environmental, energy, economic and social consequences; and***
> ***(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.***

Winterbrook identified 8 Study Areas surrounding the existing Woodburn UGB for potential inclusion in the UGB, and evaluated each study area for consistency with ORS 197.298 priorities, Goal 14 (Urbanization) Boundary Location Factors 1-4, and Goals 5, 6 and 11.

To address ORS 197.298 priorities and Goal 14 Boundary Location Factor 4, Winterbrook inventoried Goal 2 exception areas (built and committed to non-resource uses) and agricultural soil classifications for each study area.

To address Goal 11 (Public Facilities and Services) and Goal 14 Boundary Location Factor 2, the Woodburn Public Works Department analyzed the feasibility and cost of providing water, sanitary sewer and storm sewer services to each study area.

To address Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Resources, and Open Spaces), Goal 7 (Areas Subject to Natural Hazards) and Goal 14 Boundary Location Factor 3 (economic, social, environmental and energy consequences), Winterbrook inventoried wetlands, stream corridors, floodplains, and wildlife habitat (for special status species) within each study area.

Finally, to determine the area of buildable land for each study area, Winterbrook applied the same methods used within the existing Woodburn UGB. (See Technical Memorandum 1 - Buildable Lands Inventory (2005).) Protected Goal 5 and 7 resources were considered unbuildable. A fifth of an acre was considered non-buildable for each single-family residence in rural residential areas. For partially developed industrial and commercial land, the unbuildable acreage for each parcel was determined based on actual development area based on aerial photographs and visual surveys.

Potential UGB Expansion Study Areas

The 8 UGB Expansion Study Areas extend approximately one-half mile outside of the 2002 UGB. The 8 Study Areas were defined based on transportation considerations (Study Areas usually comprise multiple transportation analysis zones or TAZs) and drainage basins. Study Area boundaries were extended in certain locations to include topographic or artificial features (e.g., roads or streams), contiguous exception areas, and whole tax lots (where practical).

Major roads and railways form the primary divisions between the Study Areas. The Study Areas range in size from 191 to 755 acres, and have a combined size of 3,984 acres – or about six square miles. The Study Areas are ordered in a clockwise manner, beginning to northwest of the existing UGB with Study Area 1 (SA-1 - Northwest) and ending with Study Area 8 (SA-8 - West). The location and size of each Study Area is summarized in Table 12.[33]

Table 12. Study Area Location and Size

Study Area	Location/boundaries	Size (acres)
SA-1. Northwest	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, south by Highway 214 (Newberg Hwy.), and north by a line approximately 1,000 feet north of and parallel to Crosby Road.	655
SA-2. North	Bounded to the west by Interstate 5, east by Union Pacific Railway and N. Front Street, south by the UGB, and north by a line approximately 1,000 feet north of and parallel to Crosby Road.	675
SA-3. Northeast	Bounded to the west by Union Pacific Railway and the UGB, east by the MacLaren School for Boys, north by Dimmick Road NE, and south by Highway 211 (Estacada Hwy).	330
SA-4. East	Bounded to the west by the UGB and Cooley Road, east by properties within ½ mile of the UGB (Pudding River plateau, reservoir), north by Highway 211 (Estacada Hwy), and south by Highway 214.	343
SA-5. Southeast	Bounded to the west by Highway 99E (Pacific Hwy) and the UGB, east by properties within ½ mile of the UGB (Pudding River plateau), north by Highway 214, and south by Geschwill Lane NE.	431
SA-6. South	Bounded to the east by Highway 99E (Pacific Hwy), west by Southern Pacific Railroad, north by the UGB, and south by Belle Passe Road.	191
SA-7. Southwest	Bounded to the east by Southern Pacific Railroad, west by Interstate 5, north by the UGB, and south by property lines.	604
SA-8. West	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, north by Highway 214 (Newberg Hwy.), and south by property south of Parr Road NE.	755
TOTAL		3984

Source: Winterbrook Planning

[33] Study Area 7 was increased in size by 3 tax lots totaling approximately 98 acres in response to comments by DLCD and 1000 Friends. These added parcels included no natural resource or natural hazard lands and contained about 36 acres of Class II soils, 61 acres of Class III soils, and an acre of Class IV soils. These changes are reflected in this report, but not in the 2002 Technical Report 3: Potential UGB Expansion Area Analysis; Natural Resources Inventory.

The 8 study areas are comprised entirely of U.S. Natural Resources Conservation Service (NRCS) Class I through Class IV agricultural soils. Approximately 97 percent of non-exception area lands are classified as high value farmland. Constrained Goal 5 and 7 resource lands total 248 acres and are located primarily along the Seneca and Mill Creek corridors in Study Areas 1 and 2. Ravines associated with significant riparian corridors generally have Class IV agricultural soils. Thus, the Study Areas with the lower quality agricultural soils tend to have the least buildable Goal 5 and 7 resource sites. Table 13 describes the soil type and natural features constraints of each study area.

Table 13. Goal 3, 5 and 7 – Constrained Land Summary

Study Area	Size (acres)	Goal 5 (Natural Resources Wetlands	Streams	Species	Goal 7 Flood-plains	Total Constrained	Goal 3 (Agricultural Lands)[2] Class I	II	III	IV
1. Northwest	655	54.37	96.24	W/in streams	16.89	107.32	4	320	73	30
2. North	675	34.44	62.47	W/in streams	40.62	68.31	29	432	83	62
3. Northeast	330	6.93	14.95	W/in streams	0	15.12		135	27	10
4. East	343	3.20	18.49	W/in streams	0	19.22		296	14	12
5. Southeast	431	0	6.15	W/in streams	0	6.15		355	46	24
6. South	191	15.30	15.34	W/in streams	11.38	16.14		147	2	12
7. Southwest	604	0.87	0	0	0	0.87		397	185	20
8. West	755	4.43	14.09	W/in streams	0.26	14.41	40	567	52	81
Total Area	3984	119.54	227.73	227.73	69.15	247.54	73	2649	482	251
% of Study Area	100 %	3.00%	5.72%	5.72%	1.74%	6.21%	1.83 %	66.49 %	12.10 %	6.30%

Source: Winterbrook Planning

1. Adjusted for overlapping resource coverage.
2. Excludes Goal 5 and 7 constrained lands and exception areas.

Table 14 indicates, by study area, the gross and net buildable acreages included in the 2005 Woodburn UGB, and the Plan Map designation for each area.

Table 14. Areas Proposed for Inclusion in 2005 UGB

Study Area	Plan Map Designation	Gross Acreage	Net Buildable Acres
1 Northwest	Low Density Residential	155	107
2 North	Low Density Residential	210	150
	Commercial	2	2
3 Northeast	Low Density Residential	13	0
6 South	Commercial	13	13
	Medium Density Residential	8	8
	Low Density Residential	15	0
7 Southwest	Low Density Residential	85	68
	Medium Density Residential	60	51
	Nodal Commercial	9	8
	SWIR	279	252
8 West	SWIR	130	111
Total	---	979	770

Source: Winterbrook Planning

ORS 197.298 – Priority Areas for UGB Expansion

ORS 197.298(1) requires that the following priorities be used in selecting land for inclusion in a UGB (in order of higher to lower priority for inclusion):

(1) Land designated as an urban reserve under ORS 197.298.

Woodburn has no lands designated "urban reserve;" therefore, this priority does not apply.

(2) Exception areas or non-resource land adjacent to the UGB.

Woodburn has five exception areas adjacent to its existing UGB – to the west (1), southeast (2), and northeast (2). To comply with this priority, the City included all of these exception areas in the 2005 UGB, with the exception of the MacLaren Youth Correctional Facility. This is a state facility that already has urban services and offers no opportunity for further urban development. Neither MacLaren nor Woodburn would benefit from inclusion of this developed facility within the UGB. There is no other non-resource land adjacent to the 2002 Woodburn UGB. All land surrounding the 2002 Woodburn UGB is Class I – IV agricultural land.

(3) Land designated as marginal land under ORS 197.247.

Marion County is not a "marginal lands" county and has no lands designated as "marginal lands;" therefore, this priority does not apply.

(4) Land designated for agriculture or forestry in an acknowledged comprehensive plan.

Because (a) there are no designated urban reserve lands or designated marginal lands surrounding Woodburn, (b) no non-resource areas adjacent to the existing UGB other than exception areas, and (c) the adjacent exception areas with buildable lands that have been included in the 2005 UGB will accommodate only an additional 400 dwelling units, agricultural land must be included in the 2005 UGB to meet demonstrated needs for industrial, residential, public and semi-public land.

ORS 197.298(2) requires that "higher priority [for inclusion in a UGB] shall be given to land of lower capability as measured by the [U.S. Natural Resources Conservation Service (NRCS) agricultural soil] capability classification * * *."

Woodburn carefully considered impacts on agricultural lands when deciding in which direction(s) to expand the UGB. Woodburn's 2002 UGB is surrounded by Class I and II soils, so it would be impossible to avoid high value farmland in any expansion scenario. However, ORS 197.298(2) requires analysis of potential expansion areas to determine which areas contain lower quality soils than others. Some Study Areas contain the highest value (Class I) soils, while others have substantial inclusions of less valuable Class III soils. As noted immediately above and in the Executive Summary, the Class IV soils are generally unbuildable and therefore cannot meet identified urban population or employment needs.

Table 15 below summarizes agricultural soil capability of buildable lands by study area, exclusive of exception areas.

Table 15. Soil Classifications by Study Area*

Study Area	Size (acres)	Class I		Class II		Class III		Class IV	
1. Northwest	655	4	1 %	320	49%	73	11%	30	5%
2. North	675	29	4 %	432	64%	83	12%	62	9%
3. Northeast	330		0 %	135	41%	27	8%	10	3%
4. East	343		0 %	296	86%	14	4%	12	3%
5. Southeast	431		0 %	355	82%	46	11%	24	6%
6. South	191		0 %	147	77%	2	1%	12	6%
7. Southwest	604		0 %	397	66%	185	31%	20	3%
8. West	755	40	5 %	567	75%	52	7%	81	11%
Total Area	3984	73		2649		482		251	
% of Study Area	100%	1.83 %		66.49%		12.10 %		6.30 %	

Source: Winterbrook Planning and USCS Maps.
* Excludes Goal 5 and 7 unbuildable lands and exception areas.

Areas with Class I Soils

Class I soils are located only in Study Areas 1, 2, and 8. Study Area 1 (other than the exception area adjacent to the 2002 UGB) was determined to be unsuitable for expansion. The Class I soils in Study Area 2 are within a master-planned golf course interspersed with Filbert trees, and were originally proposed to be included in the 2005 UGB. However, to comply with the statutory priorities, the City revised the proposed boundary so that only one acre of Class I soils in this Study Area is included in the adopted UGB. The portion of Study Area 8 included in the 2005 UGB contains no Class I soils.

Areas with Class IV Soils

Class IV soils are located in all Study Areas. However, these soils are associated with stream corridors that would, if included within the UGB, be protected under the City's RCWOD safe harbor zoning regulations. Therefore, Class IV soils do not meet an identified population or employment growth need. Woodburn has sufficient constrained land within its existing UGB to meet natural area needs identified in the *Woodburn Parks and Recreation Plan.* Therefore, the presence of Class IV soils was not a determining factor for the City in deciding the direction of growth.

Areas with Class III Soils

Class III soils have the lowest quality agricultural classification that are capable of accommodating planned urban development within the 8 Woodburn Study Areas. Study Area 7 has by far the largest percentage of Class III soils: 31% of the Southwest Study Area is comprised of Class III soils that do not have inventoried Goal 5 or 7 resource areas. Study Area 2 (North) has the second highest percentage of Class III soils at 12%, followed by Study Areas 1 and 5 (11%), 3 (8%) and 8 (7%). However, the Class III soils in Study Areas 1, 3, 5, and 8 are dispersed or located at the edge of an unbuildable riparian corridor, whereas the Class III soils in Study Area 2 are concentrated south of Crosby Road and East of I-5, on what is known as the "Fessler property." Therefore, Study Areas 2 and 7 have the highest percentage of Class III soils and they contain the top priority resource lands for inclusion according to ORS 197.298(2). Most (83%) of the resource land included within the 2005 UGB for industrial and residential uses is within these two Study Areas.

Areas with Class II Soils

Class II soils are the most common soil classifications immediately surrounding the 2002 Woodburn UGB. As noted in the Executive Summary, Class II soils must be traversed in three areas to reach large Class III inclusions. These three areas are found in Study Area 2 (North), Study Area 7 (Southwest) and Study Area 8 (West.)

As noted above and shown on maps in the Council's record, Woodburn is surrounded predominantly by Class II agricultural soils. However, there are two large concentrations of Class III soils located within the eight study areas, but these areas of Class III soils can only be developed by extending services and arterial streets through Class II soils. ORS 197.298(3)(c) allows for the inclusion of lower priority Class II soils to achieve maximum efficiency of land use and where necessary to serve higher priority Class III soils.

- **Study Area 2** is comprised primarily of Class II agricultural soils. However, the second largest Class III soils concentration is also found in Study Area 2 (North) and comprises approximately 34 acres. The Class III soils are found on the Fessler property, located between Interstate 5 and Boones Ferry Road, south of Crosby Road and north of the 2002 UGB. In order to develop the Class III soils on the Fessler property for needed residential and public uses, Boones Ferry and Crosby Roads must be improved to arterial and service collector street standards, and urban services must be extended through intervening Class II soils. (See Appendix B of the Woodburn Public Facility Plan, which includes maps showing how sanitary sewer, water, and storm drainage services must extend through Class II soils located on the OGA and Fessler properties to efficiently serve the Class III soil areas.)

  Although the Council has rejected bringing Class I agricultural soils into the UGB to meet specific higher-end housing needs, the Council continues to support bringing in the western portion of the OGC golf course site, which has almost no Class I soils, for the following reasons.

  First, the Council agrees that the golf course has provided, and continues to provide a unique opportunity to meet higher-end housing needs in Woodburn. This conclusion is

supported by testimony from Renaissance Homes, which stated that this company specializes in higher-end housing, and would not have invested in Woodburn if there had not been development area adjacent to the golf course. Higher end housing is needed to retain managers and higher paid workers who will have jobs within the SWIR, if the City's economic development strategy is successful. Thus, the Council agrees, for reasons stated in Mr. Alfred's testimony, that *some* land near the golf course outside the UGB is needed for higher-end housing. However, because there is a choice between Class I and II soils, Council cannot support bringing the lowest priority land (Class I agricultural soils) into the UGB to meet this need. Thus, the Council decided to include some predominantly Class II land (shown on the Study Area 2 Expansion Area and Soils Map) within the UGB to meet the general need for housing, and specific need for higher-end housing, as authorized under ORS 197.298(3)(a).

Second, there are urban efficiency reasons to bring the northwest portion of the OGC property into the UGB. An emergency access is required to connect an approved subdivision within the 2002 UGB to Boones Ferry Road in Study Area 2. This emergency access road will cut through a relatively narrow strip of predominantly Class II orchard land sandwiched between existing golf links. This emergency access road will have adverse impacts on agricultural operations by providing un-buffered vehicular and pedestrian access through the center of the orchard. The City would prefer to have this emergency access road constructed to urban street standards, with curbs, gutters and sidewalks, because it serves a local street function. The only reasonable way to fund these improvements is for land on either side of the street to be developed for urban residential uses. Moreover, this land must be developed to help pay for a looped water system beneath the local street, which is needed to maintain adequate water pressure for land within the UGB and for proposed expansion areas north of the UGB. Moreover, the most direct way for gravity flow sanitary and storm sewer to be extended from the Fessler property to the City Sewage Treatment Plan is through the OGC property, beneath this emergency access road. Thus, land shown on the Study Area 2 (on either side and generally west of the emergency access road) is justified for urban efficiency reasons under ORS 197.298(3)(c).

Finally, development of land between the emergency access road and Boones Ferry Road is necessary to pay for improvement of the east side of Boones Ferry Road to urban minor arterial standards. Such improvement is necessary to serve planned land uses safely and efficiently, as called for in the 2005 Woodburn Transportation Systems Plan.

- **Study Areas 7 (Southwest) and 8 (West)** also have predominantly Class II agricultural soils. However, SA 7 has by far the largest Class III soil area, which includes approximately 185 acres located generally south of Parr Road and east of Interstate 5. Class II soils in SA 7 and 8 separate this Class III area from the 2002 UGB. Most of this Class II and III soils area is designated for industrial use within the SWIR, although a portion to the east is designated for residential use. To provide access to I-5 for Class III soils within SA-7, Butteville Road must be improved to arterial standards to connect with the planned South Arterial. For this to happen, land in SA-8 between the UGB and Butteville Road must develop and help pay for needed

road and utility improvements. Evergreen Drive, which will be extended by private developers to the 2002 UGB line next year, also must be improved to arterial street standards on Class II soils to connect with Parr Road and the South Arterial. In addition, urban sewer, water and storm drainage services must be constructed through intervening areas with Class II soils to allow development of lower priority Class III areas.

The Class III soils found on the southern portion of Study Area 7 continue to the south and southwest of this study area. Although the City did include one 46-acre primarily Class III parcel located south of the original Study Area 7, it did not include additional areas of predominantly Class III soil further to the south and southwest, for two reasons.

First, the two Class III parcels located between the 2005 UGB and I-5 are not needed at this time for industrial expansion. Although these parcels meet some SWIR siting criteria, their development would not facilitate extension of the South Arterial, which is needed to provide direct access to I-5 from SWIR parcels to the north. Woodburn did not add these parcels to the UGB to meet the siting needs of target industries.

Second, the large concentration of Class III soils located further to the south extend beyond the two-mile (from the I-5 Interchange) locational need limit established by the Council for inclusion of parcels within the SWIR. This land is too far from the I-5 Interchange to be attractive to targeted industrial firms. Inclusion of this land would have meant that other more suitable land closer to the interchange and urban services could not be justified (on a strict need basis) for inclusion within the UGB. Further, inclusion of parcels with Class III soils south of the expanded SA 7 would have resulted in an inefficient urban form, would not have met the City's industrial siting need criteria, and would have increased substantially the cost of providing urban services.

The Council also considered the possibility of including land south of the SWIR to meet residential land needs. The Council rejected this option for several reasons:

- First, providing residential land directly abutting the SWIR would have created unnecessary land use conflicts, which would be inconsistent with the siting needs of target industries, ORS 197.712, and the Goal 9 administrative rule provisions requiring minimization of conflicts between industrial and residential development.

- Second, providing new residential land immediately south of the SWIR would be contrary to identified livability needs. The Council has carefully selected residential areas to encourage livable neighborhoods in nodal development centers and near the golf course. Providing residential land south of planned industrial development would be inconsistent with the City's goal of providing livable neighborhoods. Moreover, extension of urban services further to the

south would increase housing costs in a manner inconsistent with Statewide Planning Goal 10.

- Third, the Council recognized livability policies in the Marion County Growth Management Framework Plan that discourage cities growing together. If residential growth were encouraged south of the SWIR, the mandated buffer between the Cities of Gervais and Woodburn would be reduced. As in the North Plains situation, *if* the UGB were extended south of the SWIR to accommodate residential growth needs, then the new residential area would be separated from the neighborhood commercial areas, parks and schools by incompatible industrial development.

As noted earlier, Woodburn has no large concentrations of Class III soils adjacent to the 2002 UGB. In Study Areas 2, 7 and 8, maximum efficiency of land use requires that intervening Class II soils be efficiently developed, to allow full development of more distant areas with Class III soil concentrations.

In other UGB Study Areas, Class II soils predominate and there are no large concentrations of buildable Class III soils. Unlike the land included within the 2005 Woodburn UGB, there is no need to develop Class I and II lands in Study Areas 1, 3, 4, 5, or 6 to achieve urban efficiency objectives or provide services to areas with predominantly Class III agricultural soils. In other Study Areas, no identified urban land use need would be served by extending urban services through Class I and II soils to reach relatively small, linear configurations of unbuildable Class IV-VI soils.

In conclusion, the adopted UGB expansion avoids the highest value farm land wherever reasonably possible, while including land with the lowest agricultural soil classification that can be served in an efficient and livable UGB configuration.

Goal 14 Boundary Location Factors 1 and 2 – Efficiency and Serviceability

(1) Efficient accommodation of identified land needs
(2) Orderly and economic provision of public facilities and services;

In evaluating alternative areas for possible inclusion in the UGB, these factors require consideration of each study area's relative serviceability and efficiency in accommodating identified land needs. Winterbrook met with the City of Woodburn and ODOT to determine which study areas could be most efficiently developed for identified land needs and economically provided with public facilities and services. As described in Technical Report 3 (Potential UGB Expansion Area Analysis; Natural Resources Inventory), the buildable portions of all of the study areas contain relatively flat and reasonably well-drained soils that can accommodate the identified land needs.

Serviceability of Study Areas
Woodburn Public Works evaluated the cost of extending sewer, water, and storm drainage services to each of the study areas in a document titled "UGB Study Area Public Services Analysis" with a latest revision in August 2004. (See Appendix C to the PFP.) The results are summarized in Table 16.

Table 16, on the following page, assigns an initial ranking (A, B, or C) to the Study Areas based on service costs per acre.

- Top (lowest cost) ranking ("A") went to **Study Areas 3 (Northeast), 5 (Southeast), and 8 (West)** with per acre costs of around $20-22,000.

- **Study Areas 1 (Northwest) and 2 (North)** received "B" rankings with per acre costs of about $24,000.

- **Study Area 7 (Southwest)** with a per-acre cost of about $29,000 received a "B-" ranking as it was higher than Study Areas 1 and 2, but lower than Study Areas 4 and 6.

- **Study Areas 4 (East) and 6 (South)** were significantly more expensive to serve on a per acre basis, with costs of $34-35,000, which led to a "C" ranking..

Table 16: Ranked Public Utilities Costs by Study Area

Study Area	Land Use Distribution in Acres			Estimated Costs in $Million					
	Study Area	Residential	Commercial / Industrial	Sewer Costs	Water Costs	Storm Drainage Costs	Total Costs	Est. Costs per Acre	Initial Ranking A, B, C
1. Northwest	600	360	240	4.48	6.10	4.17	14.75	**$24,583**	**B**
2. North	650	440	210	5.20	6.28	4.17	15.65	**$24,077**	**B**
3. Northeast	330	100	230	2.15	2.52	2.14	6.81	**$20,624**	**A**
4. East	343	343	0	3.25	5.20	3.43	11.88	**$34,633**	**C**
5. Southeast	431	0	431	2.70	3.26	3.15	9.11	**$21,137**	**A**
6. South	189	189	0	2.30	2.64	1.47	6.41	**$33,915**	**C**
7. Southwest	510	380	130	4.79	5.10	5.14	15.03	**$29,471**	**B-**
8. West	755	457	298	5.62	6.67	4.63	16.92	**$22,411**	**A**

Source: Woodburn Public Works Department (PFP, Appendix C) and Winterbrook Planning

There is a substantial difference among the study areas in public facilities costs for transportation improvements. As noted in the Executive Summary, the UGB is designed to facilitate construction of east-west alternatives to Highway 214. Development of study areas on the east side of Woodburn would not reduce congestion on City streets and County roads as much as development in study areas near I-5 (with access to I-5 from the southwest via Parr and Butteville Roads, the west via Butteville Road, and the north via Crosby and Butteville Roads). The limiting factor is the eastern access to the I-5 / Highway 214 Interchange, which can be avoided by directing traffic around rather than through the center of the City. This goal is furthered by including portions of Study Areas 1, 2, 7 and 8.

Although Study Areas 3 and 5 rank "A" for low costs of providing sanitary sewer, water and storm drainage, development of these areas would not help reduce transportation congestion at the I-5 / Highway 214 Interchange. Thus, the need to maintain interchange capacity was an important consideration in the decision to limit expansion into Study Areas 3 and 5. Moreover, including Study Areas 3 and 5 would not meet industrial siting requirements.

Study Areas 1, 2, and 8 are considered optimal for UGB expansion based on service efficiency, because these areas allow for the proposed "ring road" street configuration utilizing existing County roads (Crosby, Butteville and Parr) and also rank "B" or higher for sanitary sewer, storm drainage and water service efficiency. Although Study Area 7 has a "B-" ranking, southern portions of this area were included in large part because they include Class III agricultural soils, and therefore have a higher priority for inclusion under ORS 197.298.

To address ORS 197.298 priorities, the 2005 Plan includes several "exception areas" within Study Areas 1, 3, and 6, although Study Area 6 is relatively expensive to serve.

Ring Road System

Traffic congestion is most acute at the east access to the I-5 / Highway 214 interchange – because traffic from Woodburn and outlying areas to the east is funneled to I-5 almost exclusively from Highway 214 – and there are no other east-west urban arterial roadways available to facilitate access to I-5 from the west. To address this problem and alleviate cross-town traffic congestion, the 2005 Woodburn TSP (Figure 7-1) proposes two new north-south arterials and two new east-west arterials:

- **Evergreen Road** – connecting Highway 214 to Parr Road and the "South Arterial" parallel to and immediately east of I-5;
- **The "South Arterial"** – connecting Highway 99E to Butteville Road near the southern edge of the UGB;

- **Butteville Road** – connecting the "South Arterial" west of I-5 to Highway 214 and (eventually[34]) Crosby Road; and

- **Crosby Road Segment** – connecting Settlemier – Boones Ferry Road to the I-5 overpass and (eventually) to Butteville Road and Highway 99E at the north UGB.

The Council anticipates that the Butteville Road, Evergreen Road, Parr Road and (the western portion of) the "South Arterial" improvements will be paid for by developers of industrial and commercial land – through SDC contributions, fees and frontage improvement requirements.

Serviceability of 2005 UGB Expansion Areas

The 2005 Woodburn UGB expansion includes land in Study Areas 1 (the Butteville Road rural residential exception area), 2 (Northwest residential area), 3 (Highway 99E developed manufactured dwelling park), 6 (Highway 99E rural residential and commercial exception areas), 7 (Southwest Industrial Reserve, nodal development and residential area), and 8 (western portion of the SWIR).

As described in Table 17 below, all 2005 UGB expansion areas can be served within the planning period. Smaller exception areas along Highway 99E in Study Areas 3 (Northeast) and 6 (South) are more costly to service, as shown by higher per-acre costs. The higher cost of including the exception areas in Study Areas 3 and 6 is due to the need for a new pump station to serve that area. The PFP includes additional information regarding how each UGB expansion area will be provided with sanitary sewer, water, storm drainage and transportation facilities, both in the short- (2005-2010) and long- (2010-2020) term.

The Public Works UGB Study Area Public Services Analysis (PFP, Appendix C) shows that providing sewer, water, and drainage service to the selected UGB expansion areas is feasible during the planning period, and reasonably economical. Consequently, the 2005 UGB expansion complies with Boundary Location Factor 2.

Table 17: Serviceability of 2005 UGB Expansion Areas by Study Area

Study Area	Exception Acres	Resource Acres	Estimated Service Cost	Estimated Cost per Acre
1. Northwest	155	0	$4,280,000	$27,613
2. North	0	212	$4,210,000	$16,381
3. Northeast	13	0	$413,000	$31,769
6. South	36	0	$1,960,000	$57,647
7. Southwest	0	433	$10,230,000	$26,992
8. West	0	130	$3,238,000	$15,202
Totals	**204**	**775**	**$24,331,000**	**$23,150**

Source: Woodburn Public Works Department (PFP, Appendix B)

[34] Because Crosby Road is located outside the 2020 UGB, it will serve a rural function during the 20-year planning period, *except* for the segment between Boone's Ferry Road and the I-5 overpass.

Transportation Scenarios
ODOT analyzed the three scenarios in the 2003 Draft Woodburn TSP for potential traffic impacts – especially to the I-5 Interchange. ODOT's modeling determined that there were no substantial differences among the scenarios with respect to the safety and efficiency of the transportation system. However, Scenario 1 was rejected because it limited expansion to the south, which would have made the Southern Arterial less practical. As noted in the 2005 Woodburn TSP, expansion to the south was viewed as essential to allow for efficient nodal development and to connect Butteville Road to Highway 99E via a new southern arterial street. The adopted 2005 Woodburn TSP found that (following Table 5-2):

> *"…more than 90 percent of the lane miles on the system are projected to operate under or near capacity in the year 2020 in all scenarios. However, the proposed Southern Arterial and the widening of Oregon 214 between Butteville and Oregon 99E (as included in Alternatives 2 and 3) would significantly reduce the number of lane miles forecast to operate over capacity."*

The 2005 Woodburn TSP also analyzes intersection operations under the three scenarios and concluded that *"Based on the operational analysis, * * * Alternative 2 is the preferred alternative to meet the City's long-term transportation goals.* * * Alternative 2 balances the need for operational and mobility improvements with the constraints of funding and coordination with other jurisdictions."*

Thus, the adopted 2005 Woodburn TSP concluded that Alternative 2, which relies on the high employment projection and includes expansion to the west and southwest to accommodate industrial uses, and to the north to meet residential needs, is the most efficient from a transportation perspective.

Goal 14 Boundary Location Factor 3 – Comparative ESEE Consequences

(3) Comparative environmental, energy, economic and social consequences

Goal 14 Boundary Location Factor 3 requires a description of the characteristics of the alternative areas considered and the advantages and disadvantages of including each Study Area, or a portion of a Study Area, within the 2005 UGB.

From a social and economic perspective, avoidance of high value farmland generally should be encouraged, because such lands support Marion County's resource-based economy. From an environmental perspective, development of steeply-sloped areas, floodplains and riparian corridors should be discouraged, to minimize adverse impacts on these sensitive lands. From an energy conservation standpoint, commercial development should be encouraged through redevelopment of existing commercial areas near the I-5 / Highway 214 Interchange, to minimize vehicle miles traveled. Residential development should be encouraged in areas that abut the existing UGB and which can rely on gravity-flow sewer collection rather than energy-consumptive sanitary sewer pump stations.

To address Boundary Location Provision 3, the Council described the ESEE consequences of expansion of industrial or residential uses in each Study Area, described why each Study Area would be suitable or unsuitable for the proposed UGB expansion, then summarized the findings for each ESEE category.

Study Area 1 (Northwest)
Study Area 1 is located northwest of the current UGB. This site is bounded to the east by Interstate 5 and the UGB, to the west by Oregon Electric Railway, to the south by Highway 214 (Newberg Hwy.), and to the north by a section line approximately 1,000 feet north of and parallel to Crosby Road.

A 155-acre residential exception area (Butteville Road Exception Area) comprising the southwestern portion of Study Area 1 is included in the 2005 UGB for residential use. The Council included this area primarily to ensure compliance with ORS 197.298(1), which requires that exception areas be included before agricultural lands. The Council did not include the remainder (agricultural land portion) of this Study Area within the 2005 UGB.

The Butteville Road Exception Area is bounded on the west by Oregon Electric Railway and on the south by Highway 214. These public rights-of-way effectively separate and buffer existing rural residential development in the Butteville Road Exception Area from nearby agricultural land. Although there is no natural buffer at the northeast corner of the Butteville Road Exception Area, rural residential land uses have co-existed with farming activities in this area for many years. In any case, ORS 197.298(1) requires inclusion of this land in the UGB because it has higher priority than agricultural land.

For reasons stated below, the Council did not include the agricultural land portion of Study Area 1 within the 2005 Woodburn UGB.

Economic Consequences
Inclusion of land within Study Area 1 for employment uses was not desirable (negative economic consequence) for two reasons. First, lot sizes generally are not large enough to meet industrial siting needs. Study Area 1 is cut up into relatively small parcels – an average parcel size of under 9 acres in agricultural lands and under 2 acres in the exception area. Industrial areas require large sites that do not border residential areas and can be clustered together to create an industrial sanctuary. There are a few parcels over 20 acres in size, but these are interspersed with the smaller parcels, and divided from each other by riparian corridors. Woodburn's greatest industrial land need is for large parcels, preferably close to each other so the area can be effectively master-planned and so that residential conflicts can be minimized. Study Area 1 is not optimal for this.

Second, as stated earlier in this Report, Woodburn intends to meet its commercial land needs within existing commercial areas – through intensification and redevelopment, or in small, neighborhood-oriented commercial areas. Study Area 1 is adjacent to the outlet mall, a regional commercial center and Interstate 5, which makes it less desirable for residential uses and associated neighborhood commercial.

Study Area 1 also includes some Class I agricultural soils in the northern portion of the Study Area. Several parcels are intensively for hop and berry farming. Development of this best quality farmland for urban uses would have an adverse economic consequence on the agricultural industry. However, bringing the Butteville Road Exception Area into the UGB would minimize the use of high value farmland to serve residential needs, providing a positive economic benefit to agriculture.

Social Consequences
The proximity of Study Area 1 to the outlet mall and Interstate 5 give it negative social consequences as a residential area due to noise and exhaust pollution from traffic. Study Area 1 is also undesirable for residential uses because it is separated by I-5 from other neighborhoods in the Woodburn community. As with the City of North Plains, Woodburn does not want to have I-5, which is a formidable barrier, splitting its residential community. However, infill development of the Butteville Road Exception Area is likely to provide more affordable housing opportunities, which has a positive social consequence.

Environmental Consequences
Study Area 1 is divided north to south by a riparian corridor. Development of land near this area for residential or employment uses would have negative environmental consequences on the riparian area, due to increased disturbance and urban run-off.

Energy Consequences
Study Area 1 is fairly efficient to serve with sewer, water, and storm drainage facilities, as described under Boundary Location Factor 2 above. However, increased development in the agricultural land portion of this Study Area would likely increase traffic through the busy outlet mall area to reach the Interstate 5 interchange. This likely increase in traffic congestion has negative energy consequences.[35]

Due to environmental constraints, efficiency of urban land use in Study Area 1 would be decreased. Moreover, since Study Area 1 contains a relatively lower proportion of buildable land, per unit service costs would be greater.

Study Area 2 (North)
Study Area 2 is located to the north of the existing UGB. This area is bounded to the west by Interstate 5, to the east by Union Pacific Railway and N. Front Street, to the south by the 2002 UGB, and to the north by a line approximately 1,000 feet north of and parallel to Crosby Road.

The expanded 2005 UGB includes the portion of Study Area 2 bounded by Interstate 5 to the west, Crosby Road to the north, Boones Ferry Road to the northeast, and developed golf course links and orchard land (extending approximately 100 feet east of a required emergency access road) to the southeast. The original proposal was to include the entire

[35] The residential exception area included in the 2005 UGB is located to the west of the outlet mall, so traffic will flow around the outlet mall area and avoid the negative energy consequence.

golf course in the UGB. However, based on testimony received during the Council's review of the UGB amendment, the Council determined that the eastern portion of the golf course / Filbert orchard is comprised primarily of Class I agricultural soils. Therefore, the Council decided to exclude the Class I and II agricultural soils more than 100 feet east of the emergency access road.

There are two major land uses in this Study Area. The western portion, west of Boones Ferry Road, is used for grass seed and grain farming, while the eastern portion, east of Boones Ferry Road, is primarily a developed golf course that straddles the northern boundary of the Woodburn UGB. The Class I soils in this Study Area are all within the golf course / Filbert orchard area. The area included with the 2005 UGB is south of Crosby Road, including the western portion of the golf course / Filbert orchard area (about 15 net buildable acres), and about 160 gross acres of large parcels, currently used for grass seed and grain farming, west of Boones Ferry Road.

Approximately 150 net buildable acres of Study Area 2 are included into the 2005 UGB for residential use, and 2 acres are included as neighborhood commercial. This portion of Study Area 2 was chosen for residential expansion because it is relatively efficient to serve with gravity sanitary and storm sewer, has relatively few environmental constraints, and is adjacent to existing residential development. Crosby Road, Boones Ferry Road and I-5 provide good buffers to adjacent agricultural lands.

Economic Consequences

Study Area 2 is less suitable to meet identified industrial needs due to its distance from the Interstate 5 Interchange, the need to route traffic through the Butteville Road Rural Residential Area, and the proximity of this area to developed residential areas. This area is well-suited for moderate cost housing west of Boones Ferry Road. Land to the east of Boones Ferry Road adjacent to the golf course is especially well-suited for higher-end residential development, which will meet a specific housing need that cannot be met elsewhere within the UGB.

The small neighborhood commercial node (two acres) located along Boones Ferry Road will provide commercial opportunities for future residents in this area, thus reducing transportation costs.

Study Area 2 contains a significant amount of high value farmland, so there would be negative consequences to the farming economy if the entire Study Area were developed. However, the adopted UGB expansion area limits conflicts with remaining productive farmland to the north, because urban land is now bordered by Interstate 5 to the west, Crosby Road to the north, the golf course to the east, and Woodburn's 2002 UGB to the south.

Social Consequences

As noted in public testimony from the Serres family, the proximity of the western portion of Study Area 2 to Interstate 5 gives it negative social consequences as a residential area, due to noise and exhaust pollution from traffic. However, these impacts can be buffered with walls and landscaping. The proposed residential expansion into Study

Area 2 provides positive social consequences in two ways. First, it is near an existing residential area and golf course, providing positive social amenities and avoiding negative consequences associated with location adjacent to industrial or active farmland. Second, as noted under economic consequences, expansion into this Study Area east of Boones Ferry Road provides Woodburn a location to site upscale homes and meet housing needs for higher income families.

Environmental Consequences

The western part of Study Area 2 contains some small wetland areas that will be protected by the RCWOD. Residential development around these areas constitutes a serious negative environmental consequence; however, most of the natural areas in Study Area 2 are within or associated with the developed golf course, so there is unlikely to be further negative environmental consequences. A natural drainageway is located along the northern boundary of the golf course and will not be impacted by the proposed UGB expansion.

Energy Consequences

Study Area 2 feeds into Boones Ferry Road, which leads directly to Woodburn's downtown core shopping and dining opportunities – a positive energy consequence for residential development. Study Area 2 can be efficiently served by gravity flow sanitary and storm sewer, and would continue a relatively compact urban form, which are also positive energy consequences of the proposed expansion in this area. Energy consumption will be reduced by the proposed neighborhood commercial nodal development. By placing the neighborhood commercial node next to higher density residential, reliance on automobiles for shopping and services will be reduced in favor of bicycle and foot travel. This will have positive energy consequences.

Study Area 3 (Northeast)

Study Area 3 is located on the northeast border of the 2002 UGB. This area is bounded to the west by Union Pacific Railway and the UGB, to the east by the eastern edge of the MacLaren School for Boys, to the north by Dimmick Road NE, and to the south by Highway 211 (Estacada Highway).

The adopted 2005 UGB in SA-3 is the boundary of an existing manufactured dwelling park – in a small rural residential exception area.

Land uses in Study Area 3 are mixed – some farming on EFU land, two developed residential areas with rural residential exceptions, and the MacLaren Youth Correctional Facility. The only land in Study Area included in the 2005 UGB is a rural residential exception area adjacent to the existing UGB, that is developed as a manufactured dwelling park and is owned by a member of FAN. This land was included to ensure compliance with ORS 197.298(1) priority requirements that exception lands be included before farmland.

1000 Friends and FAN members objected to including the Northeast Rural Residential exception area served by Carl Road within the UGB because it has no remaining development capacity. They also argue that inclusion of the existing, developed

manufactured dwelling park within the UGB "would be a significant unbuffered intrusion into surrounding agricultural land."

The reason the Council included the manufactured dwelling park within the UGB is to allow for the possibility that urban services may eventually be required to serve the park for public health reasons, or to facilitate redevelopment of the site for another urban residential use. The park residents benefit from proximity to the City and do not pay for urban services. Should the park's sewer or water systems fail in the future, it is likely that the owner would come to the City and request urban services. Under Goal 11, this can only happen as a result of a health hazard annexation or a UGB amendment. Thus, the Council finds that inclusion of the Northeast Rural Residential exception areas meets both (a) a livability need for existing and future residents of the park, and (b) an urban efficiency need, to ensure efficient provision of urban services should such be required in the future.

The notion that inclusion of a developed manufactured dwelling park into the UGB would be a "significant unbuffered intrusion into surrounding agricultural land" is unfounded. The park and its "unbuffered impacts" already exist and would not be exacerbated by having access to urban services.

Economic Consequences

Study Area 3 does not meet the industrial siting needs, as it has fairly small parcel sizes and does not have good access to I-5. The economic value of industrial expansion in this Study Area would be minimal, since the City would be obligated to provide services to an area that is unlikely to meet the siting needs of targeted employers.

Study Area 3 is removed from residential neighborhoods within Woodburn, and is located near industrial and commercial areas, and a correctional facility. Though Study Area 3 can be provided efficiently with public services, its location makes it relatively less desirable for residential expansion. However, the Council included developed rural residential exception area in Study Area 3 within the 2005 UGB to ensure ORS 197.298(1) priorities are met.

Social Consequences

Study Area 3 is adjacent to commercial and industrial lands within the 2002 UGB, and includes a correctional facility, as described under Economic Consequences, which would make it less desirable for residential expansion from a social perspective. Study Area 3 is adjacent to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses. Development of the area for industrial or commercial uses would not cause adverse social consequences due to land use incompatibility; however, the land in this area does not meet identified siting requirements for targeted employers.

As noted above, inclusion of the existing manufactured dwelling park could have positive social consequences, should the park require urban services in the future.

Environmental Consequences

Study Area 3 contains substantial riparian areas near the 2002 UGB, so there would be negative environmental consequences from developing the area for employment or residential uses. The exception area included within the 2005 UGB is fully developed, so no additional negative environmental consequences are likely from the expansion.

As noted above, inclusion of the existing manufactured dwelling park could have positive environmental consequences, should the park's existing on-site systems fail, thus requiring sanitary sewer service in the future.

Energy Consequences

The energy consequences of development of Study Area 3 are relatively inconsequential. Traffic from Study Area 3 might access I-5 by traveling north along Highway 99E, and then west to I-5. Traffic might also travel through Woodburn, which already suffers from severe traffic congestion from traffic moving east to west. Further development of eastern Woodburn, including Study Area 3, therefore would have somewhat negative energy consequences resulting from potential increased traffic congestion at the I-5 Interchange.

Study Area 4 (East)

Study Area 4 is located east of the 2002 UGB. This site is bounded to the west by the 2002 UGB and Cooley Road, to the east by properties within ½ mile of the 2002 UGB (Pudding River plateau, reservoir), to the north by Highway 211 (Estacada Highway), and to the south by Highway 214.

Land Uses in Study Area 4 include farming on EFU land. The area is comprised almost entirely of Class II agricultural soils, except for unbuildable areas associated with riparian corridors. The Serres property is located in this Study Area. No land in Study Area 4 is included within the 2005 Woodburn UGB.

Economic Consequences

Study Area 4 has some sizable parcels, but its location and poor access to I-5 does not fit with industrial siting criteria. Development of this area for industrial use would have negative economic consequences for Woodburn, as this would not comply with Woodburn's EOA or Economic Development Strategy.

Woodburn's eastern 2002 UGB boundary adjacent to Study Area 4 contains a mix of larger-lot residential and commercial uses. As discussed under Boundary Location Factors 1 and 2 above, the east and southeast Study Areas are substantially more expensive to serve with public sewer and water facilities, which would create a negative economic consequence for Woodburn. In addition, expansion into Study Area 4 for residential uses would allow urban residential uses directly bordering high value farmland, which would have negative economic consequences for the farming economy.

However, as noted in the Serres testimony, inclusion of a portion of Study Area 4 would provide attractive land for residential development, although residential values might be tempered by the presence of strip commercial development along Highway 99E.

Social Consequences
Study Area 4 is adjacent to some residential areas, so expansion of residential uses in this area would not have adverse social consequences on existing residential uses inside the UGB. Study Area 4 is close to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses and by the presence of stream corridors that could be integrated into an attractive planned residential community.

However, the area is adjacent to farmland to the east and south. UGB expansion in this area would cause more adverse social consequences to both the new residential uses and farmers than proposed residential expansions in Study Areas 2 and 7. Despite the fact that Study Area 4 is accessed from Highway 99E, it appears that this area could be developed for higher end housing, based on testimony from the Serres family. According to testimony from the Serres family, an existing stream corridor in the eastern portion of Study Area 4 could provide an amenity for residential development, which would provide positive social consequences.

Environmental Consequences
Expansion of the UGB into Study Area 4 would have relatively minor adverse environmental consequences. There are a few water feature natural areas on the eastern edge of this Study Area that could be adversely affected by urban development, although these impacts could be mitigated by requiring effective stream buffers.

Energy Consequences
As with other Study Areas on the eastern side of Woodburn, expansion of the UGB in this area for employment or residential use would have negative energy consequences due to increased traffic congestion and overloading the Interchange from the east. The Council recognizes that potential residents may choose to access I-5 by heading north or south along Highway 99E, and then heading west to the Freeway. However, many residents will also use Highway 214 to access I-5, which would increase congestion at this interchange. Moreover, residential development east of Highway 99E is unlikely to help fund needed construction of the South Arterial.

Study Area 5 (Southeast)
Study Area 5 is located to the southeast of the 2002 UGB. This site is bounded to the west by Highway 99E (Pacific Hwy) and the UGB, to the east by properties within ½ mile of the UGB (Pudding River plateau), to the north by Highway 214, and to the south by Geschwill Lane NE.

Land uses in Study Area 5 are overwhelmingly farming. There is a 1-acre exception area at the southwestern edge of the Study Area, not adjacent to the existing UGB that is developed for residential uses. The area is comprised almost entirely of Class II agricultural soils, except for unbuildable areas associated with riparian corridors. None of Study Area 5 is included within the 2005 Woodburn UGB.

Economic Consequences
Study Area 5 contains some large parcels, but these parcels do not fulfill locational requirements for industrial siting needs. The economic consequences of providing industrial land that does not meet siting needs are negative, as Woodburn would have a lower supply of desirable industrial land.

Study Area 5 is separated from Woodburn's residential neighborhoods by an industrial area. Though it is efficient to serve with public facilities, it still would have relatively negative economic consequences if included within the UGB for residential use.

Social Consequences
Study Area 5 is adjacent to existing commercial and industrial areas, so it would not have negative social consequences if Woodburn were to designate additional industrial land here.

Since this area is not adjacent to an existing residential neighborhood, but is adjacent to Highway 99E, as well as industrial and farm uses that typically conflict with residential uses, social consequences of a residential expansion in this Study Area would be highly negative.

Environmental Consequences
Study Area 5 contains some natural areas that would be negatively impacted by development. However, these natural areas are relatively small and near the outer edges of the Study Area. Environmental consequences of expansion into this area would be relatively small.

Energy Consequences
Expansion into Study Area 5 for residential or employment uses would add to the amount of traffic from eastern Woodburn to the I-5 Interchange, without providing any remedy. This would increase congestion and decrease transportation efficiency, which would be a negative energy consequence.

Study Area 6 (South)
Study Area 6 is located to the south of the southeastern portion of the current UGB. This area is bounded to the east by Highway 99E (Pacific Hwy), to the west by Southern Pacific Railroad, to the north by the UGB, and to the south by Belle Passe Road.

Land uses in Study Area 6 are primarily farming, with some commercial and residential exception land along the western side of Highway 99E, extending south from the existing Woodburn UGB. To satisfy the priorities of ORS 197.298(1), these residential and commercial exception areas, totaling 36 acres, are included within the 2005 UGB. No other land in Study Area 6 is included.

Economic Consequences
As discussed under Boundary Location Factor 2 above, Study Area 6 is the second most expensive study area to provide with sewer, water, and drainage services. Expansion

into this Study Area has negative economic consequences for Woodburn and its taxpayers, as this would be an inefficient use of public funds.

Study Area 6 does not fulfill siting requirements as well as property closer to the I-5 Interchange, so is less suitable for industrial expansion. Expanding the UGB in this area for industrial uses would have negative economic consequences, as Woodburn's industrial land supply would be locked into a less-than-optimal location.

Including Study Area 6 in the 1005 Woodburn UGB would have negative economic consequences on local farming interests as residential expansion would push residential uses past the existing natural buffer (stream and wetland areas) along the southern UGB and place them adjacent to active farms.

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Social Consequences

Development of Study Area 6 for industrial uses would also have negative social consequences, as this would place new industrial lands next to an existing residential area.

Since this area is adjacent to existing residential lands, potential conflicts due to including this area in the UGB for residential use would be reduced, which would have positive social consequences for existing and future neighborhoods. However, natural (streams) and artificial (roads) buffers from agricultural land are less available to this area than Study Area 2. The eastern portion of Study Area 6 is adjacent to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses.

Environmental Consequences

This Study Area contains a few streams and wetland areas adjacent to the 2002 UGB, as shown on the Natural Features Inventory Map. Expansion of the UGB and associated development of this area would likely have negative environmental impacts on these areas.

Energy Consequences

Study Area 6 adjoins the southernmost point of the 2002 UGB. Expansion further south into this Study Area would likely have a negative energy consequence as it would not provide a compact urban form.

Study Area 7 (Southwest)

Study Area 7 is located to the south and southwest of the southwestern edge of the 2002 UGB. This area is bounded to the east by Southern Pacific Railroad, to the west by Interstate 5, to the north by the 2002 UGB, and to the south by property lines.

Existing land uses in Study Area 7 are grass seed and grain farming. Major portions of Study Area 7 are included as part of a neighborhood commercial nodal development area (8 net buildable acres), a residential area (119 net buildable acres), and an industrial reserve area (252 net buildable acres).

A new southern arterial is proposed close to the southern border of the proposed expansion area that will link Butteville Road to Highway 99E. This arterial would provide an alternative route to the I-5 Interchange for the proposed industrial uses and would reduce congestion along Highway 214.

Economic Consequences

Study Area 7 has the requisite parcel sizes, access, and location to meet industrial siting needs. Providing industrial lands consistent with Woodburn's Economic Opportunities Analysis (EOA), and Economic Development Strategy would provide a positive economic consequence.

Study Area 7 can be efficiently provided with public facilities and is adjacent to the largest area of undeveloped residential land in Woodburn. This makes it a prime location for master-planned nodal development. Economic consequences of expansion into Study Area 7 for residential uses and special mixed-use needs are also positive.

In addition, Study Area 7 has a large area of buildable Class III soils near the 2002 UGB, as shown on the Natural Features Map. Expansion into this area would use lower quality soils and save higher quality farmlands. This is a positive economic consequence.

Social Consequences

Designated industrial reserve areas in Study Area 7 are buffered from low density residential uses by medium density residential zoning. In addition, the industrial land serves as a buffer between farmland and residential uses. Industrial expansion in this location is preferable to most other Study Areas from a social perspective, so has a positive social consequence.

The vast majority of Woodburn's vacant residential land inside the 2002 UGB is to the southwest of Woodburn's city limits, adjacent to Study Areas 7. Creation of a master-planned neighborhood in this location would have positive social consequences, as it would be near park and school lands on what is the southern boundary of the 2002 UGB and provide an urban neighborhood.

Marion County Growth Management Framework policies encourage buffers between communities because the County views separation between UGBs as having a positive social consequence. The city of Gervais is located to the south. For this reason, and to maintain a buffer between agricultural and urban uses, the Council has not proposed placement of housing adjacent to additional industrial land on the south side of the South Arterial.

Environmental Consequences

Unlike many other Study Areas, Study Area 7 has no significant environmental constraints to development, which means that expansion into this area will have minimal negative environmental consequences.

Energy Consequences

Development of the expanded 2005 UGB for residential, neighborhood commercial, and industrial uses will finance a new arterial road near the southern edge of the UGB expansion area. This arterial will improve traffic circulation for the City, remove some traffic congestion from the I-5 / Highway 214 Interchange, and provide a faster route to and from Interstate 5 for existing industrial and commercial uses in southeast Woodburn. This would be a very positive energy consequence.

Locating affordable housing opportunities near the nodal neighborhood commercial shopping and service center, and near planned job opportunities, energy consumption will be reduced, resulting in positive energy consequences.

Study Area 8 (West)

Study Area 8 is located to the west of the 2002 UGB. This site is bounded to the east by Interstate 5 and the UGB, to the west by Oregon Electric Railway, to the north by Highway 214 (Newberg Highway (Hwy. 211-214)), and to the south by property south of Parr Road NE.

Approximately 130 acres of Study Area 8, located between the existing UGB, I-5, Butteville Road and Highway 214, are included in the 2005 Woodburn UGB to meet industrial siting needs. Expansion within this Study Area provides land for a large industrial park site as part of the SWIR

Economic Consequences

The expansion within Study Area 8 best meets the industrial siting criteria. Providing industrial sites that are consistent with Woodburn's EOA and EDS will have highly positive economic consequences.

Study Area 8 is on the west side of I-5, adjacent to industrial development within the 2002 UGB, and in a prime location for industrial use. If it were developed for residential use, Woodburn would exchange great industrial land for an isolated residential area. This would have negative economic consequences.

In addition, industrial uses are more compatible with the farmlands on the other side of Butteville Road than residential uses would be. Expansion of the UGB for industrial use has much more positive economic consequences in this respect than expansion for residential uses.

Social Consequences

Study Area 8 is adjacent to an existing industrial area and meets industrial siting criteria. The industrial expansion has no negative social consequences. Study Area 8 is not adjacent to existing residential uses and is inappropriate for residential uses. If this area were developed for residential use, the resulting residential area would be isolated and adjacent to both farmland and an industrial area. This would have highly negative social consequences.

Environmental Consequences
Study Area 8 includes some riparian and wetland areas at the north end of the expansion area. However, potential adverse impacts from development will be mitigated by (a) RCWOD water and riparian corridor protection measures, and (b) master planning requirements.

Energy Consequences
Development of Study Area 8 will help provide transportation facilities by funding planned TSP improvements along Butteville Road. The improvements to Butteville Road will relieve congestion at the I-5 / Highway 214 Interchange and connect with the planned Southern Arterial, to provide a faster and more efficient transportation route for residents and businesses in southern Woodburn. Expansion in this Study Area would have positive energy consequences.

Economic Conclusions
The Industrial siting needs described under Employment Land Needs in Part I of this Report specify location near and with ready access to I-5. They also specify large parcel sizes. Only study areas 7 and 8 (Southwest and West) contain appropriately sized parcels with good access to I-5. Inclusion of the southern portion of Study Area 7, which is comprised largely of Class III agricultural soils and is farmed for grains and grass seed (rather than more intensive farming uses, such as berries and hops), will have relatively less impact on Marion County's agricultural economy than inclusion of more intensively farmed areas with Class I and II soils in Study Areas 1 and 4.

As noted in the Residential Land Needs section in Part I of this Report, Woodburn needs additional residential land to meet Year 2020 housing needs. The critical economic factors in determining in which direction(s) to expand for residential use were (a) agricultural soil capability, (b) the private cost of development, (c) the public cost of providing public facilities and services, and (d) suitable locations for both affordable and higher-end housing.

Woodburn rejection inclusion of large concentrations of Class I soils, primarily because of the economic value associated with such "high value farmland" in Marion County. Since Woodburn desires to provide affordable housing opportunities, it was essential, from an economic perspective, to provide land upon which affordable housing can be constructed: i.e., relatively flat land with direct access to public facilities and services. Another economic concern for residential lands is location near other residential lands – a residential area adjacent only to industrial is not as desirable due to noise/smell impacts as well as lack of a community, for example. Study Areas 2, 4, 6, and 7 contained land that satisfied these residential criteria. Study Area 2 provides a unique opportunity for higher-end housing near an established golf course and will provide housing for higher income families with executive positions in future Woodburn firms.

Social Conclusions
In providing needed Industrial, Commercial, and Residential land, it is important to designate land use types in a compatible fashion, as well as to create a compact urban form, and to provide employment / shopping opportunities close to residences. The EOA, and the 2002 Marion County growth management study all recommended that needed

Industrial sites be located near existing industrial land along Butteville Road (at the western edge of town), to lessen the impacts on residential neighborhoods and to provide industrial sites with I-5 access.[36] The City concurs with these recommendations.

In addition, social consequences will be most positive if Woodburn locates Low Density Residential land next to existing single-family neighborhoods, and designates higher density residential land to serve as a transition area between Industrial / Commercial lands and Low Density Residential land. A small amount of neighborhood commercial land is located near residential expansion areas to serve local shopping needs.

There are three substantial industrial areas in Woodburn – in the northeast, southeast, and west – near study areas 3, 4, 5, 6, 7, and 8. From a Social perspective, any of these study areas would have been appropriate for Industrial. However, as described in Economic Consequences, only Study Areas 7 and 8, with direct access to I-5, meet Woodburn's Industrial site suitability needs.

For Residential lands, Study Areas 2, 4, 6, and 7 are adjacent to existing residential areas. The majority of Woodburn's vacant residential land inside the 2002 UGB is to the southwest of Woodburn's city limits, adjacent to study areas 6 and 7. Study area 2 is next to a developed residential neighborhood and golf course. Study area 4 is adjacent to larger-parcel residential areas. All of these areas would be reasonable for residential expansion from a Social perspective, although service costs are relatively high for Study Areas 4 and 6. However, Study Area 7 best provides for affordable housing opportunities near new employment areas, and Study Areas 2 and 4 best provide for higher-end housing opportunities.

Environmental Conclusions
All of the study areas contain some wetland or riparian areas. Woodburn limits development in identified natural resource areas by the RCWOD. Study Areas 1, 2, and 3 contain substantial floodplain, wetland, or riparian areas near the 2002 UGB, which might make them more difficult to develop from an Environmental perspective. However, most of the identified natural resources in Study Area 2 are within an existing golf course, and thus are less likely to be further adversely affected by new development.

Energy Conclusions
Woodburn considered energy consequences, as measured by (a) compact urban growth form and access to/distance from the City center, (b) minimization of vehicle trips, (c) impacts on congestion at the I-5 / Highway214 interchange, and (d) the need for sanitary sewer pump stations.

Study Area 8 is most favorable from an energy consequence standpoint as it provides the best access to I-5 for industrial uses. Study Areas 3, 4 and 5 are less favorable from an

[36] Even the 2000 McKeever-Morris study recommended inclusion of industrial land between I-5 and Butteville Road. Although the Council agrees with this particular conclusion, the McKeever-Morris study has been superceded by the Winterbrook land needs analysis and buildable lands inventory.

energy consequence standpoint because they are located on the east side of the City, and development of these areas would not facilitate east-west transit construction to ease traffic congestion. Inclusion of Study Area 1 (other than the Butteville Road Exception Area) would increase traffic congestion in the vicinity of the outlet mall. Inclusion of Study Area 6 would not promote a compact urban growth form.

Study Area 7 is unique because it provides buildable land immediately adjacent to the largest undeveloped area within the 2002 UGB. This is why this UGB expansion area was selected for master-planned nodal development. Substantial energy savings result from when higher density development is immediately accessible to neighborhood shopping facilities and jobs, as provided in the 2005 Woodburn Comprehensive Plan.

Summary

The 2005 UGB expansion locations in Study Areas 2, 7 and 8 provide generally positive ESEE consequences and are better suited to meet identified land needs than Study Areas to the east and southeast. New residential areas are adjacent to older residential areas and have the least impact on farmland, while industrial expansion areas best meet industrial siting criteria. The only expansion areas that are not optimal from an ESEE standpoint are the exception areas in Study Areas 1, 3 and 6. The 2005 UGB expansion includes these exception areas to comply with ORS 197.298(1) priorities, as described above.

Goal 14 Boundary Location Factor 4

(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.

The term "compatible" does not require that there be no interference with, or adverse impact of any kind on, adjacent uses, but rather that the uses be reasonably able to coexist.

Woodburn is surrounded on all sides by farmland, with relatively few exception areas. Except for the MacLaren Youth Correctional Facility, all exception areas adjacent to Woodburn's UGB are included in the 2005 UGB.

Soil Type and Agricultural Productivity by Study Area

This analysis of agricultural suitability identifies the types of soil present in each Study Area and describes crops typically grown on these soil types as shown in the Soil Survey of Marion County Area (US Department of Agriculture, 1972). As explained in text following Table 18, all of the study areas contain some soil types suitable for grass, pasture, and cereal grains. Some Class I-III soils are additionally suitable for vegetables, hops and berries; the Class III soils must be irrigated.

Table 18. Soil Types and Study Areas

Map Unit Name	Map Symbol	Capability unit	High value farmland	Study Areas
AMITY SILT LOAM	Am	IIw-2	Yes	1-8
BASHAW CLAY	Ba	IVw-2	Yes	2, 6
CONCORD SILT LOAM	Co	IIIw-2	Yes	1-5, 7-8
DAYTON SILT LOAM	Da	IVw-1	Yes	1-3, 5-8
LABISH SILTY CLAY LOAM	La	IIIw-2	No	2, 3
TERRACE ESCARPMENTS	Te	IVe-2	No	2, 4, 5
WILLAMETTE SILT LOAM, 0 TO 3 PERCENT SLOPES	W1A	I-1	Yes	2, 3, 8
WOODBURN SILT LOAM	WuA, WuC, WuD	IIw-1, IIe-1, IIIe-1	Yes	1-6, 8

Source: Marion County GIS and USGS

Amity Series. The Amity series consists of somewhat poorly drained soils that have formed in mixed alluvial silts. These soils have slopes of 0 to 2 percent. They occur on broad valley terraces at elevations of 150 to 350 feet. The average annual precipitation is between 40 and 45 inches. The average annual air temperature is 52° to 54° F., and the length of the frost-free season is 190 to 210 days. In areas that are not cultivated, the vegetation is mainly grasses, shrubs, hardwoods, and scattered Douglas firs. Amity soils are associated with Dayton and Concord soils. In a typical profile, the surface layer is very dark grayish-brown silt loam that is mottled in the lower part and is about 17 inches thick. The subsurface layer is mottled dark-gray silt loam about 7 inches thick. The subsoil is a substratum of mottled olive-brown silt loam underlies the subsoil. The **Amity soils are used mainly for cereal grains, grass grown for seed, and pasture. When irrigated, areas that are drained can be used for all the crops commonly grown in the survey area. Amity soils are found in all Study Areas.**

Bashaw Series. The Bashaw series consists of poorly drained and very poorly drained soils that have formed in alluvium. These soils are in backwater areas of the flood plains and in drainage channels of silty alluvial terraces. They have slopes of 0 to 1 percent. Elevations range from 100 to 400 feet. The average annual precipitation is between 40 and 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly annual and perennial grasses, wild blackberries, sedges, rushes, willows, and a few ash and oak trees. Bashaw soils are associated with Wapato soils. In a typical profile, the surface layer is about 31 inches thick and consists of mottled very dark gray clay in the uppermost 3 inches and of mottled black clay below. The upper part of the substratum, just beneath the surface layer, is very dark gray clay that extends to a depth of 48 inches. The lower part of the substratum is dark grayish-brown clay or sandy clay that extends to a depth of 60 inches or more. The substratum is mottled throughout. **The Bashaw soils are used mainly for pasture. Bashaw soils are found in Study Areas 2 and 6, underlying riparian portions of each Study Area.**

Concord Series. The Concord series consists of poorly drained soils that have formed in alluvium of mixed mineralogy. These soils are on broad valley terraces, in slightly concave depressions and in drainageways. They have slopes of 0 to 2 percent. Elevations range from 125 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly rushes, sedges, wild blackberry, hazel, annual grasses, and ash trees. Concord soils are associated with Amity and Dayton soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 6 inches thick. The subsurface layer is mottled dark-gray silt loam about 9 inches thick. Just below the subsurface layer is a layer of mottled gray and dark-gray silty clay about 4 inches thick. The subsoil is about 10 inches thick. It consists of mottled grayish-brown silty clay in the upper part and of mottled dark grayish-brown silty clay in the lower part. The substratum of mottled dark grayish-brown silt loam extends to a depth of 60 inches or more. **Concord soils that are neither drained nor irrigated are used mainly for cereal grains, pasture, hay, and grass grown for seed. When irrigated, the drained areas are used mainly for berries and vegetables. Concord soils are found in Study Areas 1, 2, 3, 4, 5, 7, and 8.**

Dayton Series. The Dayton series consists of soils that are poorly drained. These soils have formed mainly in old mixed alluvium, but their upper layers may have been influenced, to some extent, by loess. The soils are on broad valley terraces, and they occur in drainageways and in shallow depressions. Slopes range from 0 to 2 percent, and elevations range from 125 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 190 to 210 days. In areas that are not cultivated, the vegetation is mainly annual and perennial grasses, wild rose, and scattered ash trees. Dayton soils are associated with Amity and Concord soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 7 inches thick. The subsurface layer is mottled dark-gray silt loam about 6 inches thick. The subsoil is mottled and consists of a layer of clay about 33 inches thick. It is dark gray in the upper part and is grayish brown in the lower part. The substratum is mottled grayish-brown silty clay loam that extends to a depth of 60 inches or more. **The Dayton soils are used mainly for small grains, pasture, hay, and grass grown for seed. Daytona Soils are found in Study Areas 1, 2, 3, 5, 6, 7, and 8.**

Labish Series. The Labish series consists of poorly drained soils that have formed in mixed mineral and organic material. These soils have slopes of 0 to 1 percent. They occur on the bottoms of former shallow lakes at elevations of 150 to 175 feet. The average annual precipitation is between 40 and 45 inches, the average annual air temperature is 53° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly sedges, tussocks, and willows. Labish soils are associated with Semiahmoo soils. In a typical profile the surface layer is black and is about 7 inches tick. It consists of silty clay loam in the upper part and of silty clay in the lower part. The next layer is very dark brown silty clay about 9 inches thick. Below this is very dark gray clay that extends to a depth of 60 inches or more. **The Labish soils are used mainly for onions, small grains, pasture, and hay.**

Labish soils are found primarily in Study Area 2, with a small inclusion in Study Area 3.

Terrace Escarpments. Terrace escarpments (Te) consists of gravelly and silty alluvium that is too variable in characteristics to be classified as soil. It is moderately steep or steep and occurs along the sidewalls of the major streams, on terrace scarps, and on the side slopes bordering channels of intermittent streams. The vegetation is mainly Douglas fir, maple, hazel, swordfern, brackenfern, poison-oak, tussock, sedges, and grasses. This land type is suitable for pasture and for use as woodland. **The short, steep slopes make tillage impracticable. Unbuildable terrace escarpments are found in Study Areas 2, 4, and 5.**

Willamette Series. The Willamette series consists of deep, well-drained soils that have formed in silty alluvium. These soils are on low, broad valley terraces. They have slopes of 0 to 12 percent. Elevations range from 150 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 50° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly oatgrass and other native grasses, hazel, blackberry, Oregon white oak, and Douglas fir. Willamette soils are associated with Woodburn soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 12 inches thick. A subsurface layer that also consists of very dark grayish-brown silt loam and that is about 5 inches thick is just beneath the surface layer. The upper part of the subsoil is dark-brown silt loam about 7 inches thick; the middle part of the subsoil is dark-brown silty clay loam about 14 inches thick; and the lower part is dark-brown silt loam about 16 inches thick. A substratum of dark yellowish-brown silt loam underlies the subsoil, and it extends to a depth of 65 inches or more. **The Willamette soils are used mainly for small grains, pasture, hay, orchards, berries, and vegetables. Willamette soils are Class I soils around Woodburn and are found in Study Areas 2, 3, and 8.**

Woodburn Series. The Woodburn series consists of moderately well drained soils that have formed in silty alluvium and loess of mixed mineralogy. These soils are on broad valley terraces. They have slopes of 0 to 20 percent. Elevations range from 150 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly grass and Douglas fir. Woodburn soils are associated with Willamette soils. In a typical profile, the surface layer is about 17 inches thick and is very dark brown silt loam in the upper part and dark-brown silt loam in the lower part. The subsoil is about 37 inches thick. It is dark yellowish-brown silty clay loam in the upper part; mottled dark-brown silty clay loam in the middle part; and mottled, dark-brown silt loam in the lower part. The substratum is dark-brown silt loam that extends to a depth of 68 inches or more. **The Woodburn soils are used mainly for small grains, pasture, hay, orchards, berries, and vegetables. Woodburn soils range from Class II to IV and are the predominant soil type in all Study Areas except Study Area 7, which includes substantial portions of Amity and Concord soils.**

Farm Land Compatibility

The greatest concern for compatibility with agricultural uses is residential expansion – because residential uses have the greatest potential for conflicts with agricultural practices due to vandalism, roaming pets, and residents' sensitivity to dust, odors and chemicals commonly used in agriculture. Every Study Area contains high value Class I-III agricultural soils. The Council's goal has been to minimize points of conflict between new residential designations and high value farmland.

Marion County, Department of Land Conservation and Development (DLCD) and Department of Agriculture (DOA) staff have suggested using road rights-of-way as buffers where feasible, to minimize conflicts with agricultural operations. The Council took this advice seriously and has used public rights-of-way, existing exception areas and stream corridors as buffers wherever feasible. Thus, the 2005 Woodburn UGB includes natural (stream corridors) or artificial (road rights-of-way) buffers between residential and agricultural land in most circumstances.

The 2005 Woodburn UGB further minimizes conflicts between residential land uses and agricultural lands by (a) expanding the UGB to include existing exception areas, where conflicts already exist, and (b) placing industrial (rather than residential) land uses next to agricultural lands, because industrial uses are more compatible with agricultural practices than residential uses.

Most of Woodburn's residential development is expected to occur in the southwest portion of the expanded 2005 UGB. To minimize impacts from residential development near agricultural lands, the 2005 UGB incorporates large public rights-of-way as boundaries: lands included within Study Area 7 for residential use are buffered from agricultural lands by the South Arterial as well as the Southwest Industrial Reserve (SWIR).

To meet additional residential land needs, Woodburn expanded the UGB north from a generally unbuffered, developed residential neighborhood and golf course into Study Area 2. This expansion includes a portion of the golf course located outside the 2002 UGB, west of a proposed emergency access road, and undeveloped agricultural land. The 2005 UGB is bordered by I-5 to the west, a developed golf course and Boones Ferry Road to the east, and Crosby Road (a planned service collector street) to the north. Only two segments of the expanded 2005 UGB on the east side of Boones Ferry Road directly abut farmland, comprised of an existing, poorly maintained orchard interspersed among existing golf course links. This is similar in effect to the housing development adjacent to farmland that exists now on the border of the 2002 UGB, but is confined to smaller areas.

As noted above, industrial land uses have operational characteristics that are more compatible with farmland than residential uses. Industrial uses typically create noise, dust and odors, as do agricultural uses. Industrial uses are less sensitive to nearby agricultural uses than residential uses, because families with children and pets typically are not present in the workplace. Moreover, most industrial uses planned for the Southwest Industrial Reserve (SWIR) will occur mostly indoors, and thus will not be as susceptible to dust, pesticides, fungicides, and noise from nearby grass seed and wheat operations. Prior to amendment of the UGB in 2005, existing industrial lands on the western border of the 2002

UGB were not buffered from agricultural land at all. The 2005 UGB expansion reduces conflicts between farmland and industrial uses by increasing road right-of-way buffers, as recommended by Marion County, DLCD and DOA staff.

Industrial uses in Study Area 8 are separated from farmland by Butteville Road to the west. A proposed new southern arterial provides a buffer for most of the industrial land in Study Area 7. The only industrial expansion area that will be adjacent to farmland without a road right-of-way buffer is one parcel in Study Area 7, south of the proposed southern arterial. This parcel was included in the 2005 UGB for two reasons: first, because it has predominantly higher-priority Class III agricultural soils, and second, to meet industrial siting needs. This parcel cannot be further divided without a master plan, and will only develop if Woodburn attracts large industrial firms to the area. The impact of this southwestern parcel on farmland will be similar to the existing industrial-farmland interface in the area.

Adopted 2005 expansion areas include buffering between residential and industrial uses and farmland that does not exist within the 2002 UGB. The pre-2005 UGB contains residential land adjacent to farmland with no buffering along much of its northern and eastern borders. With the 2005 expansions, there is no more impact on agricultural lands than now exists under the acknowledged UGB. This point is documented by Table 19 below.

The 2005 UGB maintains about 35,300 linear feet (6.7 miles) of the "old" 2002 UGB. Conflicts with agricultural land will not increase along this common boundary. Although much of the 2002 UGB has natural buffers, such as protected stream corridors, many segments have unbuffered residential, commercial or industrial land uses directly abutting agricultural land.

However, unlike the 2002 UGB, adopted expansion areas have almost no areas with an unbuffered boundary between new residential and agricultural land. Approximately 41,400 linear feet (7.8 miles) of the expanded 2005 UGB is buffered by existing residential exception areas, arterial street rights-of-way, the existing golf course or planned industrial areas.

There are only 300 linear feet along the borders of 2005 expansion areas (less than 1% of the linear distance of the expanded boundary) where new residential plan designations directly abut unbuffered farmland. Over 99% of the expanded 2005 UGB has public road rights-of-way, existing exception areas, industrial plan designations or the existing golf course *between* the planned residential land use and productive agricultural land. As noted above, the only place where new residential plan designations have an unbuffered border with agricultural land is in the North expansion area east of Boones Ferry Road.

Table 19: 2005 Urban Growth Boundary Agricultural Impacts Summary

Study Area	UGB Description	Distance (ft)
1 Northwest	Existing UGB	4900
	Butteville Road Exception Area	2000
	Butteville Road Exception Area and Railroad Track	4200
	Highway 214	2300
	I-5	4300
2 North	Crosby Road (Service Collector)	3400
	Existing UGB	5500
	Boones Ferry Road (Arterial)	900
	Golf Course	1300
	Property Line (Unbuffered)	*300*
3 Northeast	Developed Exception Area	2200
	Existing UGB	7400
4 East	Existing UGB	8000
5 Southeast	Existing UGB	6700
6 South	Exception Area	3700
	Exception Area and Hwy 99E	2500
	Existing UGB	2800
7 Southwest	Southern Arterial	3000
	SWIR (one 50-acre parcel)	4000
	SWIR and Butteville Road (Arterial)	2100
8 West	SWIR and Butteville Road (Arterial)	5500
2002 UGB	6.7 Miles	35,300 (46%)
Buffered Expansion Areas Total	7.8 Miles with Exceptions Areas, Golf Course, SWIR, or Arterial Street Right-of-Way	41,400 (54%)
Unbuffered Total	0.06 Miles where New Residential Plan Designation Abuts Agricultural Land	300 (0%)

Source: Winterbrook Planning

SUMMARY OF COMPREHENSIVE PLAN AND DEVELOPMENT CODE AMENDMENTS

The 2005 Plan and Code amendments include:

- Inclusion in the UGB of all commercial and residential "Exception" areas adjacent to the existing UGB, except the MacLaren Youth Correctional Facility area;
- Residential UGB expansion into the North and Southwest study areas;
- Industrial expansion into the West and Southwest study areas;
- Creation of the Parr Road Nodal Overlay area;
- Extension of the transportation system to support expansion areas; and
- Inclusion of land for new parks, schools, and an urban plaza to support residential growth.

Inclusion of Exception Areas

The 2005 Plan includes three exception areas – a developed residential exception area to the northeast along Highway 99E, a residential and commercial exception area to the southeast along Highway 99E, and a residential exception area to the northwest along Butteville Road. These exception areas are planned for approximately 13 net buildable acres of commercial land, 105 dwelling units on 7.5 net buildable acres of medium density residential land, and 295 dwelling units on 107 net buildable acres of low density residential land.

Residential Expansion

The 2005 Plan includes land to the north and southwest of the 2002 UGB to meet 2020 residential needs. Approximately 150 net buildable acres of residential land is included in the expansion to the north, between I-5 and Mill Creek. This expansion area includes some of the developed golf course, is designated as Single Family Residential (SFR), and is expected to meet both SFR needs as well as some park and school needs (see discussion under Public Uses below).

Residential expansion to the southwest includes approximately 68 net buildable acres of Nodal SFR land (RSN) and about 51 net buildable acres of Nodal Medium Density Residential (RMN) land. Much of the residential expansion in the southwest is within the Parr Road Nodal Overlay area (described under Parr Road Nodal Overlay Area below). Land further to the southwest was not included because it would not efficiently meet identified needs for employment or livable residential neighborhoods.

Commercial Expansion

The 2005 UGB adds 24 net buildable acres of Commercial land, either in Neighborhood Commercial nodes (11 acres) or within an existing commercial exception area along Highway 99E (13 acres).

Commercial expansion under the 2005 Plan will occur within the residential expansion areas to the north and southwest of the 2002 UGB and is expected to take the form of neighborhood-serving commercial development. In the north expansion area, the

commercial area is 2 acres adjacent to the golf course, on the east side of Boones Ferry Road.

In the southwestern expansion area, 9 acres of commercial land are located in the Parr Road Nodal Area, to the east of industrial lands and adjacent to the north, south, and west to MDR lands. The 2005 Plan Map shows this commercial area with the Nodal Development Overlay (described under Mixed Use Areas below), and adjacent to an urban plaza (described under Public Uses below).

Industrial Expansion

The 2005 Plan includes lands to the west and southwest of the 2002 UGB to meet 2020 industrial site needs (per discussion of Employment Land Needs in Part I of this Report). These lands are designated Southwest Industrial Reserve (SWIR), which reserve large parcels exclusively for targeted industrial needs, and require master planning prior to annexation and development. As described in Table 20, the SWIR area contains 6 major sites (including 17 defined sub-sites to meet targeted industrial needs) with a total buildable area of about 362 acres.

Table 20: SWIR Sites and Characteristics

Tax Lot Number(s)	Buildable Site Acres	Reserved Site Size Ranges	Estimated Site Sizes	Land Division Permitted?
52W11 TL 300 (Darma / OPUS) **Subtotals:**	**88**	25-50 10-25 10-25 5-10 5-10 2-5 2-5 **59-130**	35 15 15 8 8 4 3 **88**	Yes, with Master Plan approval
52W14 TL 200 52W14 TL 600 (Weisz) **Subtotals:**	**22**	10-25 5-10 **15-35**	15 7 **22**	No
West of I-5 Sites	**110**	**74-165**	**110**	**See above**
52W13 TL 1100 52W14 TL 1500 52W14 TL 1600 (Seibel, Gottsacker, Weisz)	**96**	96	96	No, ROW dedication for Southern Arterial and Evergreen Reserved for Firm ≥ 300 employees
52W14 TL 800 52W14 TL 900 52W14 TL 1000 52W14 TL 1100 (Weisz) **Subtotals:**	**106**	50-100 25-50 2-5 2-5 **79-160**	65 33 4 4 **106**	Yes, with Master Plan approval; ROW dedication required 50-100 Acre site reserved for Firm ≥ 200 employees.
52W14 TL 1200	**4**	**2-5**	**4**	**See above**
52W23 TL 100 (Weisz) **Subtotals:**	**46**	25-50 5-10 2-5 **32-65**	35 8 3 **46**	Yes, with Master Plan approval
East of I-5 Sites	**252**	**209-326**	**252**	**No**
Total SWIR	**362**	**283-491**	**362**	

Source: Winterbrook Planning and City of Woodburn

Parr Road Nodal Overlay Area

The bulk of Woodburn's vacant residential land supply is in the southwest portion of the 2002 UGB. As this land is not yet developed, it provides an opportunity to combine large tracts of vacant land within the 2002 UGB with land to the north of the planned Southern Arterial, to create a mixed-use nodal area. The intent of the Nodal Overlay is to allow for pedestrian-friendly, higher density single- and multi-family residential development with pedestrian and bicycle access to a neighborhood commercial center. This will have several long-term advantages for Woodburn, including efficient urban development, reduced public

facilities costs, compact urban form, and reduced transportation costs for residents. It is also close to future industrial employment opportunities, additional shopping, and present and future parks and schools.

The Parr Road Nodal Overlay area includes approximately 196 net buildable acres of land planned for Nodal Low Density Residential, 64 net buildable acres of Nodal Medium Density Residential, and 10 net buildable acres of Neighborhood Commercial.

Mixed-Use Areas

One of the adopted measures to achieve higher densities within the 2002 UGB is vertical mixed use housing above commercial. This is allowed within the existing Woodburn Downtown and the proposed Parr Road Nodal Overlay area. Expected development within the NDO designation includes housing above commercial in the form of apartments or condominiums. The NDO provides opportunities for intensification of commercial land use and increased residential densities close to urban commercial amenities.

Transportation System Extension

Figure 5-2 of the 2005 Woodburn TSP describes improvements to existing transportation facilities, as well as planned new facilities that will support the 2005 Plan. To the north, Crosby Road is shown as improved to service collector standards. This will provide a buffer between residential expansion south of Crosby Road and agricultural land north of Crosby Road, as well as support residential development in the northern expansion area.

In the southwest, the 2005 Woodburn TSP shows extensions of Evergreen Road and Stacy Allison Drive, which will support and serve the Southwest Industrial Reserve (SWIR) (SWIR). There is also a new "South Arterial" that is shown as running from Parr Road, across the southern edge of the 2002 UGB, to Highway 99E on the east side. This South Arterial will support southwest industrial uses as well as new residential development in the Parr Road Nodal Overlay Area.

Public Uses

The 2005 Plan includes the opportunity for development of needed parks and schools in the residential expansion areas. In the northern expansion area, the Council expects at least one community park and an elementary school to serve residential expansion and population growth. In the southwest, an existing community park can expand into new residential lands. Near the commercial section of the Parr Road Nodal Overlay area, there is a requirement to create an urban plaza to serve both surrounding residents when they shop at nearby retail and service establishments.

Staff Initiated Comprehensive Plan Amendments

The 2005 Plan includes several plan map designation and zoning map amendments for individual parcels inside the 2002 UGB, to make these parcels consistent with existing or surrounding land uses. These amendments were initiated by City Staff on a separate but concurrent track. There were approximately 500 changes to plan designations on tax lots through this process. Some of the plan changes affected properties identified as containing

buildable land on the Buildable Lands Inventory. The changes that affect buildable lands are summarized in Table 21.

There were a total of 55 tax lots identified as "Vacant" or "Infill" on the Buildable Lands Inventory that were affected by these changes. In some cases the changes did not affect buildable land areas, for example when private land within riparian or flood plain areas was changed from "Open Space" to "Low Density Residential". In other cases, the changes reduced buildable lands by recognizing public ownership and existing use of lots for right-of-way or parks – identifying properties that had slipped through the original screening process in the Buildable Lands Inventory and were mistakenly identified as buildable. In many cases the changes moved buildable area from one plan designation to another. For example, Low Density Residential to Medium Density Residential.

The end result is a slightly lower supply of Low Density Residential (-6 acres) and Commercial (-1.1 acres) lands within the 2002 UGB, and slight increases in Medium Density Residential (0.5 acres) and Open Space (2.7 acres) lands. One additional small (5-10 acre) industrial site was identified during these changes, which is reflected in the industrial land acreage difference in Table 21.[37]

Table 21: Staff-Initiated Comprehensive Plan Amendments

Plan Designation Affected	Number of Tax Lots Affected	Buildable Land Acreage Difference
Low Density Residential	20	(6)
Medium Density Residential	9	0.5
Industrial	8	6.1
Commercial	4	(1.1)
Open Space	8	2.7

Amendment Summary

The residential, industrial, and commercial expansions adopted by the City Council meet Year 2020 residential, industrial, and commercial needs as shown in Table 22 below. **Note that the adopted plan and code amendment package includes (a) redesignation of land inside the existing UGB to intensify land use in certain areas, and (b) expansion of the UGB to meet Year 2020 identified needs.**

[37] This site has been accounted for in the Industrial Land Needs section earlier in this document.

Table 22: Council Approved Plan – Overall UGB Demand / Supply Comparison

Plan Designation	Net Buildable Acre Supply	Net Buildable Acre Need	2005 Plan Acres Surplus (Deficit)
LDR (Low Density Residential)	371	217	154
Exception Area LDR	107	107	0
Nodal LDR	220	186	34
Internal Changes to LDR	(6)	0	(6)
MDR (Medium Density Residential)	80	62	18
Exception Area MDR	8	8	0
Nodal MDR	73	54	19
Internal Changes to MDR	1	0	1
VMU (Vertical Mixed Use)*	NA	NA	NA
Public and Semi-Public (Including Schools, Parks and Religious Institutions)	0	210	-210
All Residential	854	844	10
Commercial (Retail, Office)	127	NA	0
Internal Changes to COM	(1)	0	(1)
Industrial / Basic Employment	407	486	(79)
Internal Changes to IND	6	0	6
All Employment	**534**	**627**	**(74)**
Totals Surplus			**(64)**

Source: Winterbrook Planning
* Note: The "need" for vertical mixed use housing is met above retail or office development in Downtown Woodburn or in the proposed Neighborhood Commercial Node.

Table 22 assumes that public park and school land needs, as well as religious institutional needs, will be met on land designated for residential use. This table shows a 10-acre surplus between the demand for, and supply of, residentially-designated land.[38]

Table 22 shows an under-supply of industrial acreage due to the mismatch between existing industrial sites and the site characteristics of sites needed by target industries. This stems from three sources.

- First, some sites are below ECONorthwest's estimated site size, but within the site size range. For example, an 11-acre site falls within the 10-25 site size range, but is below the 15-acre estimated site size.

- Second, as discussed in the Employment Land Needs section in Part I of this Report, and in the 2005 Buildable Lands Inventory, there are some lots that were initially identified as partially-vacant within the 2002 UGB, but were subsequently

[38] This comparison is based on cumulative acreage, rather than on capacity. Due to lot size inefficiency on low density residential lands within the existing UGB, the effective capacity is approximately 30 acres lower. Either way, the 2005 UGB is within 15 acres, or within 2%, of meeting identified 2020 residential land needs.

determined to *not* meet siting requirements -- because the landowners indicated they have plans to expand existing uses. The 2005 Comprehensive Plan intentionally restricts the supply of industrial land within the 2002 UGB in order to encourage siting of new, targeted industrial development on these lots to further maximize efficiency of land use.

- Third, the industrial siting requirements of the SWIR allow for a range of sizes to meet siting needs of targeted employers. The allocations are generally by average site size. If developed sites within the site ranges are below the average size determined by ECONorthwest, there will be additional acreage to allocate to smaller sites. The 2005 Plan allows for and ensures the availability of large sites to meet industrial siting requirements, but also allows the potential for smaller industrial park sites, as long as needed site size ranges are retained.

In summary, the 2005 Plan meets identified residential, public/semi-public, livability and employment needs for the City of Woodburn through the year 2020.